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MIND AND VOICE

MIND AND VOICE

PRINCIPLES AND METHODS
IN VOCAL TRAINING

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PREFACE

In all departments of education teachers are suffering from misuse of the voice. Aside from hindrance to the progress and injury to the health of pupils, most teachers fail to do their best work from lack of control of the organic instrument which all must use. Many preachers shorten their lives, to say nothing of the loss of efficiency, from causes which could be remedied by a little attention to vocal training and expression. Over thirty years ago I stood before an audience, in the middle of an address, unable to speak a word for some minutes. The horror of those moments has never been blotted from memory. That failure was a climax of several years, during which I had sought help from over twenty teachers. I determined to search still more diligently to find the cause of my condition. I made earnest studies in this country and in Europe. As I begun to grasp the problem, sufferers begun to come to me, and I was led to give my life to endeavors to do for others what was not done for me.

I owe much to my teachers — to Dr. Alexander Graham Bell, who first inspired me with the possibility of a science of voice, and to his father, Alexander Melville Bell, who helped me to conquer many defects, and to the elder Lamperti, of Milan, who instilled into my heart the spirit of the old masters of song.

No one, however, must be held responsible for the views here expressed. Good or bad, they are the product of my own observations and experiences during thirty years of earnest study.

The general reader will doubtless feel that there are too many exercises, but to me the exercises are the necessary means of demonstration. These have also been arranged to aid teachers who are often compelled to change the point of view and to assign different exercises to different students according to individual needs.

To those who believe that more attention should be given in modern education to expression and the use of the voice and especially to the few who have sustained me in my efforts to advance the neglected but important subject of Vocal Training and Expression, the work is committed with the hope that it may prove helpful.

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MIND AND VOICE

I

SOME PRIMARY PRINCIPLES

I. METHOD OF INVESTIGATION

While alone in his garden Sir Isaac Newton saw an apple fall, and the idea came to him that the same force which draws the apple to the earth holds the moon in its place. To the philosopher this idea became the basis of long years of investigation, calculation, and experiment. At last he established the truth of his theory so firmly that it has ever since been accepted as the law of gravitation.

Whether history or fable, this story illustrates the method of scientific investigation named in Newton's honor. Great as are the laws which he established, "his example of the manner of establishing them," according to Professor Jevons, "is greater still."[1]

The mode of investigation which follows Newton's example is usually accepted among scholars and investigators as the "scientific method." It may be formally outlined in a few words:

1. A preliminary observation of the fundamental condition underlying some phenomenon.

2. A statement as a temporary hypothesis of this supposed explanation or guess as to the cause.

3. Careful and extended observation and experiment regarding all the possible applications of this theory for its confirmation or disapproval.

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[1] The Principles of Science, W. S. Jevons, Vol. II, p. 227.

4. A conclusion as to its truth or untruth.

A different method called the Baconian, denies the help of a hypothesis, and observes phenomena without any theory as to their causes.

The ablest authorities, when the two methods must be directly compared, contend that Newton's example has been followed, consciously or unconsciously, by nearly all leading investigators since his day. It is not too much to claim that the great discoveries of modern times have been achieved by his method.

The two, however, are not in such strong contrast as is often thought. One who follows the Newtonian method must continually study the facts to form some hypothesis. Even after one has been formed, he often observes various conditions and facts without any reference whatever to his supposition. On the other hand, one who professes to follow the Baconian method must frequently use his imagination, for he is continually looking for results and principles, and cannot help guessing as to explanations or watching for confirmation of specific expectations. Often a guess must stand as a tentative explanation during investigation. Both the Baconian and the Newtonian, or any scientific method, imply patience, perseverance, teachableness, and an honest endeavor to find the truth at all times and at all hazards.

I. IS THERE A SCIENCE OF VOICE?

When can the knowledge of any subject be called a science? Although Halley's comet had not been seen for seventy-five years the time of its reappearance was foretold. Such predictions cause us to pronounce mathematics a science. The power of prediction is one of the tests.

If loss of voice or nervous prostration can be foretold of some speaker years beforehand, on account of a peculiar use of the voice, would this indicate scientific knowledge?

Another test is afforded by such a knowledge of causes as will enable one to produce or to change phenomena, effects or conditions. Because one can analyze water into its elements or combine oxygen and hydrogen in certain proportions in a way to form water we speak of the science of chemistry.

A teacher is weary, nervous, has headache and sore throat after teaching all day. Medicine, physical training, out-door exercise, and even a vacation, only palliate the symptoms; but one with the requisite knowledge and insight, by a course of carefully prescribed exercises, corrects certain abnormal vocal actions and conditions, establishes certain normal ones, and thus relieves such a condition permanently. Do such facts indicate a science of voice?

Some think it is merely the intuition of a peculiar type of mind. Others believe that such results are accomplished by experience without knowing any principle underlying such work.

Possibly the strongest test of the possession of a science is the knowledge of certain fundamental elements or principles by means of which the phenomena are explained or brought into such unity that fundamental or primary elements can be distinguished from accidental or secondary ones.

To apply the scientific method to the voice implies the finding, stating, and proving of some principle or principles which will explain the difference between a right and a wrong use of the voice.

For such a discovery it is necessary to observe carefully the facts regarding tone production. Any apparent explanation must be held temporarily to guide us during prolonged investigation and comparison.

It must be conceded at the outset that there are many difficulties in the way of establishing a true science of producing tone. The voice is closely related to life and character; its modulations are directly united to thinking and feeling; it is subjective; its processes are subconscious. Many of the muscles concerned in its production are often involuntary or only semivoluntary. The organs that produce it are among the most vital of the human body. Moreover, since everyone has been using his voice all his life without serious thought, habits have been formed which, however abnormal, seem natural to the individual himself. Misconceptions regarding the voice are almost universal; wrong and injurious methods are widely prevalent. People in general regard primary conditions of voice as insignificant and its right use as unimportant. Can methods applied so directly to objective facts be of service in investigating such a complex and neglected subject?

All scientific inquiry, however, is difficult. Even the hour of the transit of Halley's comet across the face of the sun could not be told exactly, though that of the moon or earth in an eclipse can be calculated to the minute. Nearly all the sciences are limited. Many theories are held tentatively. Readjustments are continually taking place because of the discovery of new facts.

Through scientific inquiry, however, fundamental principles have been discovered underlying the most complex and difficult phenomena. Why then should we not seek to understand the use of the voice?

It is not the hope to establish scientific principles so that anyone without study can teach the difficult subject of the voice. Intuitive insight is always necessary; long experience and patience are required to develop the power of improving the voice. Vocal training is necessarily an artistic process.

All art, however, is based upon science. The sculptor must have a knowledge of anatomy; the painter is not hindered by knowledge of color; geometry and mathematics are necessary to the architect. The art of vocal training depends upon a thorough knowledge of certain fundamental principles. The teacher must know the causes of certain conditions and be able to explain them. He must understand why he prescribes various exercises or his work will be uncertain. If such principles can be found the art of vocal training can be based on scientific knowledge.

II. PRELIMINARY HYPOTHESIS.

As a first step let us observe some specific voice action with great care in order to approach as nearly as possible to some primary element or explanation that may serve as a hypothesis. Next, let us apply this to other cases, that we may confirm or disprove its universal application.

Thirty years ago, while investigating the case of a preacher, who, by misuse of his voice, had acquired a chronic congestion of his pharynx, I thought I found a clew to a fundamental condition. I have followed up that preliminary observation with those of several thousand cases, and have studied both the presence and the absence of the condition in all classes and professions. I have found it universally present in normal uses of the voice, and either absent or vitiated in faulty or abnormal ones. By establishing this condition through the practice of exercises serious faults have been removed and abnormal conditions corrected.

The discovery of this principle has led to that of other truths akin to it, but with broader and deeper applications.

In accordance with this method, and as a specific instance of the use of the voice, picture a child playing in the street as an automobile whirls around a corner, and suppose that to save the life of the child you give a sudden shout of warning.

In uttering the exclamation many things may be done.

You may throw up one or both hands, or wave your cane; you may rush forward; but none of these actions are necessary to the cry. A hundred such accidental movements will give us no clew to the primary or necessary conditions of the shout. We find, if we observe ourselves at the moment of shouting, that we take breath and become active in the middle of the body, while the throat or tone passage simultaneously relaxes and opens. Further study will reveal the fact that without these conditions a shout is impossible.

Certain persons indeed are utterly unable to shout under such circumstances. With such the activity in the middle of the body and the simultaneous passivity of the throat do not result from discovery of the situation.

Observation of the elements of such an isolated instance furnishes a hint as to one condition underlying the normal basis of tone production, and we form a hypothesis which may be stated as follows:

Preparation for tone implies a direct response of the body to the mind immediately before the tone is produced. This response consists in taking breath resulting in a sympathetic elastic fullness or activity in the middle of the body, and a simultaneous passivity and opening of the throat or tone passage. Wherever these conditions are reversed, or in any way interfered with, there will be imperfect tone production, and whatever tends to establish them will make the voice easy, natural, and strong.

Although this principle can be so easily stated it required years for its discovery, and the student may at first be skeptical, on the one hand, or, on the other, may accept it too carelessly, and thus fail to realize its full significance. Many in practicing merely pull down the jaw in union with breathing; but the opening of the tone passage cannot be voluntary. It must result from coordination of the nerve centers, and must be spontaneous. When the breath is cramped or used carelessly, or is managed at the wrong part of the thorax, the throat will be simultaneously cramped. It will require, accordingly, patient perseverance in the practice of some simple exercises to restore this fundamental condition when it has been lost or perverted, and to secure that right accentuation which will give strength, freedom, and richness to the voice.

III. OBSERVATION AND COMPARISON.

We must be careful at first not to state such a hypothesis as a law. Serious mistakes in science have been made from taking without sufficient experiment such a guess, or seeming clew, as an established principle. Any observation which leads to the formation of such an hypothesis is important, but the basis or test of the scientific method comes in the patient investigation into whether this is an accidental, a mere phase of some extreme use of the voice, or whether we have found an essential condition of every expressive vocal action.

1. Observe first, that in certain isolated words or commands, such as "hence," "no," "halt," "stand," or "fire," these conditions are present. Note the difference between one who speaks such words as "yes" and "no" well and one who utters them imperfectly, and you will find that such conditions exist in proportion to the agreeable character of the tone and the ease with which the speaker produces it.

2. Observe especially such involuntary uses of the voice as laughter, sighing, or sobbing, or any sudden tone due to some intense joy or pain. In all these, among many differences due to personal peculiarities, to the situation, to the degree of control and temperament, we find one universal fact — the presence of our supposedly fundamental condition.

As a more specific study of these involuntary vocal actions, let us take that which is most common, and can be most easily observed,—laughter. The subject of laughter has often received serious discussion, but has never been exhausted. Watch yourself when some cause of mirth arises. Imagine hearing Mrs. Partington say "Oh, I do love to go to church and hear a populous minister dispense with the Gospel!" Such a remark usually makes a sudden effect upon us. It takes us, as Sam Lawson said, "right where we live." While laughter is different in each human being, yet it is true in every case that in proportion to the genuineness of the humor the centre of the body is always active through the taking of more breath than usual, while the throat, the muscles of the pharynx, and the back of the tongue become passive simultaneously with its reception.

When a person has food in the mouth, if laughter be suddenly excited he will sometimes have a fit of coughing. Why is this?

It is, of course, implied here that the laugh is genuine. There are many pretended or polite laughs which lack these primary characteristics. In general, they are present in proportion to the sincerity of the mirth. Mock laughter directly violates these conditions. There is no additional amount of breath drawn into the lungs and no spontaneous co-ordinate passivity of the tone passage. Such things prove the truth of the law as much as observation of the positive elements in genuine laughter.

Again, if we give careful attention to a little child sobbing, or to any example of an involuntary expression of extreme pain, we find that there is great agitation in the middle of the body, while the lower jaw and tongue are more or less relaxed, and the tone passage, and even the mouth are open.

3. When we compare agreeable and disagreeable voices we find that the pleasing ones always have this

primary condition, while unpleasant tones violate this fundamental principle. Voices also which are produced with ease have this characteristic, while those which are labored do not obey this natural law.

If the student will make as agreeable a tone as possible, and then follow it with one that is displeasing, he will discover that he has reversed these conditions. In the latter case there is likely to be not only constriction in the tone passage but also in the muscles controlling the breath. At any rate, there will not be found that sympathetic co-operation between the elastic activity in the middle of the body and the relaxation of the throat.

4. Again, if we endeavor to throw the voice to some distance — across a river for example — such conditions will be accentuated. When present there will be a normal and easy use of the voice; whenever absent — that is, whenever there is constriction of the throat or lack of breath in the middle of the body — there will be a failure to project the tone easily and sympathetically.

5. If we observe some of the most common faults of voice, such as throatiness or nasality, we always find some violation of this fundamental principle or condition.

In general, in all faults of emission of tone there is some constriction in the tone passage where there should be passivity. In the middle of the body there is a lack of that sympathetic, full expansion characteristic of normal tone production, and that corresponding responsive or co-ordinate passivity simultaneously present in the pharynx.

6. Next, observe such an abnormal use of the voice as that of preachers or speakers who suffer from congestion of the pharynx or from nervous weariness after speaking. Such persons have constrictions of the muscles of the tone passage and especially those in the region of the back of the tongue. They have either a lack of breath, or they breathe too seldom, or at the top of the lungs,

or in some way constrict the natural action of the respiratory muscles, or fail to co-ordinate voice breathing with life breathing. In a great number of cases, — in fact, in all the many I have undertaken, — where there was patience and perseverance, such sore throats have been corrected by establishing the fundamental conditions of tone production.

7. If we turn to such persons as teachers who use the voice continually for any length of time, we notice that those who are nervous or worried at the close of their day's work, those inclined to break down from nervous exhaustion, and especially those who suffer from sore throats, are the ones where this fundamental condition is absent or perverted. By re-establishing this, the health of teachers and the qualities of their voices are greatly improved. They will speak with greater ease and pleasure to themselves and to those who are compelled to listen.

8. Observe carefully the use of the voice by ladies in society, during their calls. Those who are nervous and weary after a number of such interviews will be found to speak with a small amount of breath, without normal activity in the middle of the body or the right simultaneous relaxation of the tone passage. Frequently the voice is softened by lessening or wasting of breath, causing affected tones.

9. If we consider only superficially the most extreme abnormal uses of the voice, such as stammering, this principle will be found violated in some way, although the violations may be varied and peculiar. There is a constriction and failure to separate the vocal organs immediately before speech. The stammerer often seems to endeavor to make consonants without tone conditions or preliminary separation of the organs which are so necessary to accomplish the sudden stroke and

instantaneous recoil, and in every instance I have found abnormal conditions of breathing.

The first steps for the correction of stammering must be the centralizing of the breath, and the establishment of co-ordination. Of course, these will not be sufficient; in the majority of cases long and patient practice is necessary to establish other co-ordinations, since still more complex perversions of vocal conditions will be found requiring patient and careful training.

Nor is voice culture valuable only for correcting defects in speech in order to render it more pleasant to the ear. By training the voices and developing right conditions in persons suffering from general ill health — particularly in those who have some trouble with the respiratory mechanism — the health has been marvelously improved in a short time. In many such cases discouraged students looking forward to ultimate failure have been so greatly helped physically that wonderful results have been accomplished.

10. We have seen, however, that some people in a situation of danger demanding a sudden shout of warning, are unable to use the voice. In such cases the primary effects of extreme surprise are the direct reverse of the conditions observable in the majority of people. The throat shuts and cramps. The breathing becomes spasmodic or almost suspended. Such a person is unable to shout even to save a life, because he is so frightened or excited that the normal co-ordinations of the nervous system do not follow. One in whom these conditions are established is normal; one who lacks such a response is hysterical. The body of a normal person sympathetically expands, all his faculties and powers awaken. That of the second is abnormal and constricted, and the nervous system becomes so perverted that the action of the faculties is totally deranged.

As some confirmation of this I have found that those speakers who become frightened or who are over-conscious and worried about whether they are to speak well or not are more liable to abnormal voice conditions. The person with confidence is likely to have better control of his voice.

This responsive co-ordination implies self-control. Emotion not regulated nor controlled may have the opposite effect. The lack of normal control over the emotions may be the cause of upsetting this well-nigh universal condition of tone.

Since the hypothesis has explained the nature of perversions and furnished a basis for such exercises as will correct them, it is sufficiently established to be regarded as a principle governing the right use of the voice.

IV. APPLICATION OF THE PRINCIPLE.

Having found the fundamental condition and discovered that it is always present in exact proportion to the correct use, and absent or violated in all faulty use of the voice, it can be seen at once that by adopting some simple exercise that will emphasize these co-ordinate actions naturally we shall have something that will improve the voice.

Exercise I. Primary Responses — I.

Accordingly, take some word or phrase involving surprise or exultation such as "The sea!" from the first of the following passages, or "Hark" or "Arise" from the second. By putting ourselves imaginatively in the situation of the retreating ten thousand when they first discovered the sea and knew that their homes were somewhere in the midst, we can observe these conditions, and even accentuate them. In observing these we have what I will venture to call a study, and in the repeated practice of it, accentuating easily and normally the co-ordinate responsive actions, we have a technical exercise.

"The sea! the sea!" was the joyous cry of the Greeks on discovering from a height the distant sea. They knew that their wanderings over snow-clad mountains and among savage tribes had not been in vain. Those blue waters washed the shores of their long-sought home.

Hark, Hark! the lark at heaven's gate sings,
  And Phœbus 'gins arise,
His steeds to water at those springs
  On chaliced flowers that lies;
And winking Mary-buds begin
  To ope their golden eyes;
With every thing that pretty bin,
  My lady sweet, arise;
    Arise, arise!

From "Cymbeline" **Shakespeare.**

II. VOICE AND BODY

If we return to the first exclamation above and observe further the effect of surprise, we find that this co-ordination of the tone passage and the diaphragm is not the only one concerned in establishing conditions of voice. Simultaneously with this, the reception of the impression causes an expansion of the chest and elevation of the body. In extreme surprise practically all the muscles of the body are affected; hence in any exclamation involving surprise the spontaneous preparation for tone consists not only in the simultaneous taking of breath and opening of the throat, but also in certain responsive actions of the body. In receiving any extreme impression the face kindles, the whole torso sympathetically expands, the body becomes more erect, and nearly all the muscles more or less change their condition.

Do these actions or conditions of the body in any way affect the tone? Are they merely accidental or are they essential? Most persons regard them as of no importance, as purely accidental and extraneous, but even a small amount of observation will show that they are of fundamental importance.

This sympathetic union of all the conditions of the body and the voice, though a fundamental step, is yet one of the most neglected of all in vocal training. It has been the least understood or observed.

Many teachers of song contend that a singer cannot act. This view is probably due to the fact that action has been taught mechanically and superficially, or as a mere matter of gesture.

Careful observation will show that actions of the body, when spontaneous or truly expressive, normally establish conditions of tone. Especially does that diffusion of feeling through the body, always associated with genuine emotion, marvelously affect the voice. This diffusion may render the muscles firm almost as a rock, or soft almost as cotton. Such modulation of the muscular conditions of the body is one important source of the enrichment, modulation, or variation of the sympathetic vibration of tone.

A few examples will prove this. If we make the muscles of the hands, arms, or face as rigid as possible, we find that the tone will correspond. It becomes hard when the muscles are hard. By relaxing the muscles we change at once the quality of the tone. If one will constrict the face as expressive of great antagonism, and then try to make a soft and gentle tone, he will observe the artificiality of such a condition. The voice and face are mocking each other; they are certainly not in sympathetic unity. If, however, he will laugh genuinely and heartily, and while doing so will draw down the corners of the mouth, he can observe at once what it is that makes a mock laugh.

Again, if a person will make the best tone he can, and while preserving the conditions as far as possible, draw down the outer corners of the nostrils, he will discover a surprising effect upon his tone. It is impossible for anyone to constrict the nostrils and not make the tone nasal, as a direct result. There are certain local constrictions in the body, causing co-ordinate obstructions in the tone passage, and consequently many of the abnormal qualities.

There are many other tests of the influence of the body upon the voice. Note that in expressing great excitement the body must show the effect of the emotion or it can hardly affect the tone.

Observe the difference of the body in the expression of joy and sorrow, of hate and tenderness, of anger and love. In every instance, in the genuine expression of feeling by the voice, a certain condition is established in the body before the utterance of words.

From these illustrations we can see that it is necessary to study responses of the body in order to understand and develop right responses of the voice. Man's mind, body, and voice act together in expression. The mere local co-ordination, which seems and is absolutely necessary, is true as far as it goes, but we must go deeper and realize that many of the primary conditions of the voice as well as its modulations arise from the expressive actions of the body.

Exercise 2. Correlation of Voice and Body — I.

A direct method of testing the response of the body and voice to the actions of the mind is to render genuinely two short passages widely contrasted, or some sudden transition, noting the difference in the actions and conditions of the body and the effect upon the voice. When genuinely realized and assimilated almost every phrase has a specific response of the body causing voice conditions.

Charge! Chester, charge! On! Stanley, on!
Were the last words of Marmion.

From "Marmion" Scott.

Come! let us go a-maying
As in the Long-Ago.

W. E. Henley.

They are slaves who dare not be
In the right with two or three.

From "Stanzas on Freedom" James Russell Lowell.

The mastery, therefore, of the right use of the voice implies some study of the function of the different parts of the body in pantomimic expression.

The first expression of life is expansion. Almost every student in beginning the development of his voice is tempted to make too much effort. In nearly all cases this will be misplaced. He will especially tend to accentuate contraction, with little or no sympathetic expansion. Resolution and earnestness will normally cause expansion, for at first the contraction is simply an added expression of control. To begin with contraction violates nature's primary law.

The first effort accordingly must be to stimulate activity in the extensor muscles. The student must realize that any awakening of his imagination and feeling, any genuine quickening of his interest, must first cause sympathetic expansion, especially of his torso. It must also kindle his face and increase the pulsation of life through his whole body. Imagination and emotion, when natural, first affect the muscles concerned in the sympathetic and harmonious activity or expansion of the body.

The whole torso must be expanded. This gives room for free action of the lungs and diaphragm. It also establishes the primary condition for normal sympathetic vibration. Thought, imagination, and emotion attune the whole body as the sounding board of the voice, and this work is initiated by a harmonious expansion and a certain unity of all parts of the body.

Observe that the voice may be apparently softened by manipulation, but a mechanical mode of breathing, or a fixing of the throat is only a trick and is not only useless and affected, but interferes with nature's rhythm and is injurious to health. All true expression must be spontaneous. Artificial work is one reason why ordinary elocutionary training is considered injurious to success on the stage, and is offensive to every lover of genuine and natural dramatic or oratoric expression.

An expression of the body may consist of unconscious bearings caused by habitual emotional conditions. These are frequently the direct reason for perversions of tone. It is not only necessary to go deep into the psychological cause of these but also to give attention to their effects upon the permanent actions of the body.

Such habits must be corrected by direct exercises perseveringly practiced before the voice will permanently improve. In all adequate training of the voice the body must be studied and normal conditions developed.

As an illustration of the relation of the voice to the action and expression of the body, note that there is an important difference between acting in opera and in drama. In the former the conditions are more pronounced. Hence, there are a greater number of attitudes than in the latter. The singer must not make any gestures; but any genuine study of action must recognize the fact that attitudes are far more important than these. The positions express conditions, while the motions show more transitory emotions.

From all this it is evident that it is necessary in a broad, all-around study of the human voice to consider carefully the relations of the body to the voice. First, the student should become conscious of the intimate relations of the two.

Of course the importance of the influence of body upon voice may be overestimated. Delsarte and his pupil, Steele Mackaye, held that when the action of the body was correct the voice would necessarily be properly produced. While the effect of the body upon the voice is really great this is going too far. There must necessarily be a direct study of the actions of the primary conditions of the voice and the development of the parts which respond and become co-ordinated in the establishment of conditions. But as soon as the voice begins to be normally produced, we discover the influence of the body and here meet with another co-ordination.

Exercise 3. Correlation of Voice and Body — II.

In getting control of the primary conditions of voice it is a helpful, if not necessary, exercise to render passages full of earnestness and excitement or of different emotions, realizing every idea and situation so intensely as to awaken imagination and feeling sufficiently to affect the body as a whole as well as to establish the right conditions of breathing and the tone passage. The student, abandoning himself to the situation, must allow his body to be expanded, elevated, and lifted by the feeling, and permit it to respond to the emotion and establish voice conditions.

Come, shoulder to shoulder ere the world grows older!
Help lies in nought but thee and me;
Hope is before us, the long years that bore us
Bore leaders more than men may be.

Come, shoulder to shoulder ere earth grows older!
The Cause spreads over land and sea;
Now the world shaketh, and fear awaketh,
And joy at last for thee and me.

From "The Voice of Toil" William Morris.

Hark, hark! — Who calleth the maiden Morn
From her sleep in the woods and the stubble corn?
The horn, — the horn!
The merry, sweet ring of the hunter's horn.

"The Hunter's Song" Barry Cornwall.

Aside from the direct effect of emotion upon the body or the co-ordination of the action of the body with the respiratory and primary conditions of voice, conditions of health and strength greatly influence tone. Whenever the health is good the voice is likely to be strong. When the body is weak the tone is weak. It is well known that the voice is the most accurate indicator of the conditions of the sympathetic nervous system. The least cold at once influences its quality, and bodily weariness is immediately apparent in the voice.

Health will not correct certain faults of voice, such as throatiness, nasality, or hardness, but the physical condition greatly affects the strength of tone.

There should be no vocal training without a careful examination as to health. Poor health has great power to hinder the effects of vocal exercises. Its improvement will not necessarily train the voice but will make it stronger and establish primary conditions. The trainer of the voice must be sure that the pupil as far as possible, has normal conditions of vitality upon which to build. Vocal training may be the very thing needed for the development of the strength of students, but conditions of health should always be regarded. At times, different exercises should be given, greater patience exercised, and occasionally students must be given recuperative exercises in the early morning and evening, such as will develop the breathing and cooperate with the development of the voice through that of the body.

III. VOICE AND MIND

In observing the relation of the voice to the body we have found an additional key to the mysteries of tone production. We have, however, not gone deep enough, and must search for a still better explanation of voice conditions.

How are primary conditions of tone, even those already discussed, the co-ordination of pharynx and breathing and of the various parts of the body established for tone production? It is impossible to accomplish this by mere will. In such an extreme surprise as the one to which our primary observations have been directed, conscious and deliberate choice is not possible. There is evidently an involuntary or spontaneous union of many elements, muscles, and organs. There are many other co-ordinations aside from those already observed. How are all these complex parts brought into unity of functioning? There can be but one answer: by the impulses of thinking and feeling.

Extreme surprise establishes innumerable conditions for tone by direct response of all the organs concerned to the impression received. In proportion to the vividness and intensity of the impression will the conditions of the voice be more pronounced.

I. THE CLOSE RELATIONS OF VOICE TO MIND.

In an exclamation, or the expression of surprise, we find more than a co-ordination between breathing and tone, — a more important one than that between the voice and the body. We cannot produce satisfactorily, by a mere act of will, even with the utmost care, the conditions for tone established spontaneously and in right unity by direct action of imagination and feeling.

If we endeavor to make the tone by will, there will always follow certain extra and unnecessary efforts in the respiratory muscles or in the tone passage, some endeavor to pull the mouth open, which will cause constriction of the harmonious vibrations of the voice. We can hardly establish true vocal conditions by mere volitional effort. Complex unity of responsive activity and conditions results only from a deeper co-ordination of the conscious and subconscious, the voluntary and involuntary elements of our being, and co-ordinate responses of all the parts of the body to these mental and emotional activities.

Any serious study of stammering, for example, will prove how easy and how disastrous is any displacement of these primary co-ordinations. This book endeavors to show that all right use of the voice depends upon certain co-ordinate conditions of different parts established by the normal action of thought and feeling. All misuse of the voice is caused by some kind of interference with these co-ordinations. This lack of co-ordination may exist between thought and imagination or thought and feeling, and between psychological and bodily actions as well as a failure of the two parts simultaneously and harmoniously to respond to the mental action.

Vocal training at the present time is almost universally regarded as a mechanical process. It is often called voice "building." Teachers in singing usually prescribe a series of exercises consisting of scales and simple musical phrases. No hint is given that these mean anything. Many books of this kind are published. There seems to be an idea that in the mere producing of a certain succession of notes there resides some power to develop the voice. Certain teachers make suggestions regarding breathing and give a few points on the vocal mechanism, or recommend students to read some book on physiology; but rarely explain or even refer to any principles underlying their own exercises. Who has ever heard anything said regarding the connection of tone with the mind?

In the practice of exercises by students themselves we find still less thought as to the relation of mind to tone. Their work is nearly always perfunctory and mechanical. Those who are faithful obey their masters and labor on for years with a few exercises to attune their instruments, and occasionally catch a glimpse of their teacher's aim. The majority of such students, though beginning with great enthusiasm, lose confidence in their own power and in the possibilities of song as a mode of expression, and often forsake the art entirely.

In my view the fault is chiefly found in the method. It is not always that students are impatient, but the mechanical character of the practice represses their enthusiasm, does not lead them to feel any connection between their ideals and dreams and the work they are doing. A true method would awaken consciousness, not merely of voice but of mind and body. Real training of any kind belongs to the whole man.

If the art of singing is mechanical, what can be said of recitation, acting, and even of public reading? These are not only artificial, but in most cases the nature and importance of the principles upon which vocal utterance is founded are completely ignored. The mechanical character of elocution is too well-known to need discussion, and one of our leading critics said of the imperfections of one of our prominent actors: "Where can he go to get assistance?"

To some it may seem trivial to discuss the intimacy between mind and voice, since it is so elemental and seems something that can always be taken for granted; but the universal overlooking of true principles in training and the radical departure which is advocated in this book make it necessary to mention a few examples showing the close connection between voice and mind.

1. Note one of the most familiar instances: anger and antagonism constrict the voice and tend to make it

throaty and disagreeable. Sympathy and tenderness, on the other hand, make it softer and richer in vibration and more pleasing to the ear. Joy usually makes the voice purer and not only causes expansion of the body but increases sympathetic retention of the breath thus producing a corresponding openness of the throat and freedom of tone.

2. A lack of proper control over emotion is always associated with the absence or wrong use of primary conditions of tone. The many perverted speech melodies, such as the so-called "ministerial tunes," are due to some peculiar attitude of mind, to lack of control over emotion, or some abnormal mental condition. Wrong speech tunes, whether the nasal whine or the extreme ranting or the pathetic drop of the more educated, are all due to abnormal emotional or educational conditions.

Note that preachers who suffer in health from misuse of the voice, especially those with sore throats, usually have sad views of life. Those who are abnormally self-condemnatory or moody are liable to suffer from misuse of the voice.

3. Again, speakers who exaggerate emotion or affect feelings which they do not really possess, always reveal the fact by their empty tones, abnormal or perverted speech tune or melody.

Such speakers who have "tunes" or who lack control over emotion, are much more liable than others to suffer from congestion of the throat and other effects upon health from misuse of the voice.

4. Note the fact that the careful observer can tell anyone's profession simply by the tones of his voice. Even an ordinary traveling man can locate the state or locality from which his companion comes by the peculiarities of his speech. In a group of teachers the voice is nearly always hard, while among ministers a

different fault is perceptible. In general, the voice shows the habits, trend of mind, the convictions, and the emotions of every individual.

5. One of the important proofs that the mind is the primary factor in vocal training is the circumstance that some of the worst faults in the use of the voice are directly caused by mental and emotional actions. One of these is the almost universal fault of too infrequent breathing. Is the cause of this defect physical or mental? In nearly every case it is purely mental. The speaker is wholesaling his ideas. He is thinking of the complete thought which he is to utter. That is, his mind is either upon the whole subject he is to deliver or far ahead of the phrase which he is uttering at a given time. Change his attitude of mind; get him to think of one thing at a time, or specifically and vividly to realize his successive impressions; or to individualize his ideas and introduce them one after another, in an easy, natural sequence, realizing each definitely. Now observe the effect upon his breathing. He will breathe more frequently and more naturally, and there will be a greater tendency to establish true voice conditions.

6. The voice is connected not only with the motor nerves, but also with the sympathetic nervous system. Hence, in abnormal physical conditions it is directly affected. Hoarseness is often one of the first signs of "taking cold." This is due to the connection of the voice with the nervous system.

If the sensory nerves be intimately related to the mind, the motor nerves closely allied to the will, and the sympathetic nervous system to emotion, then the right use of the voice must co-ordinate all these. The voice implies a union of thinking and feeling. From this, we can see the reason why the culture of feeling is best secured by the right training of the voice and a true use of it in expression.

7. Animals with voices are usually of a higher order, and have finer feelings than those without, and the character of the animal is always shown by the voice. Among birds those with the gentlest dispositions, such as the turtle dove, have the sweetest songs, while jay birds, English sparrows, crows, hawks, and other robbers make discordant tones.

8. The voices of "defectives" are always imperfect. Any mental defect is likely to show itself not only in poor articulation, but in the absence of good tone and expressive modulations of voice. Any abnormal disposition or ignoble emotion affects the quality of the tone. Changes of voice in conversation are not voluntary, for the most part, but spontaneous, and directly mirror mental discriminations as well as emotional transitions.

II. VOICE MODULATIONS AND CONDITIONS.

The influence of the mind as the primary factor in the use of the voice is especially seen when we come to observe the natural variations of the voice in daily conversation. We find that every change of idea or feeling, when anyone is natural, causes a change of voice. Every degree of realization, every mode of conceiving ideas, and each change in feeling are shown in the natural variations of the voice.

The voice modulations in common conversation are not always conscious or voluntary. For the most part they are in the background of consciousness, and many of them are purely spontaneous. There is a coordination between voluntary and involuntary, conscious and unconscious elements; and as a whole, they perfectly mirror the attention, the progressive transitions of the mind in thinking, the discriminations and all the changes in feeling. Any change of voice directly caused by thinking or feeling may be styled a voice modulation.

These expressive modulations or responses of the voice to mental actions form, — according to the views presented in this series of books, — the phenomena of vocal expression. The study of these and their development belong to that subject. Yet we cannot wholly separate voice conditions and their development, which is the theme of vocal training, from voice modulation. In developing right conditions for producing tone the student must have some knowledge of these modulations. That they respond directly to the mind, furnishes one of the strongest evidences of the intimate relation between mind and voice.

Exercise 4. Thinking and Voice Modulations.

Let us, accordingly, observe the primary actions of the mind and some of the expressive actions of modulations of the voice which they directly cause in simple conversation, and also in reading aloud some short passage. To manifest the meaning of such a poem as the following demands the exercise of certain simple but important actions of the mind and modulations of the voice.

THE FRONTIERSMAN

The suns of summer seared his skin,
The cold his blood congealed;
The forest giants blocked his way;
The stubborn acres' yield
He wrenched from them by dint of arm,
And grim old Solitude
Broke bread with him and shared his cot
Within the cabin rude.
The gray rocks gnarled his massive hands;
The north wind shook his frame;
The wolf of hunger bit him oft;
The world forgot his name;
But 'mid the lurch and crash of trees,
Within the clearing's span
Where now the bursting wheat-heads dip,
The Fates turned out — a man!

Richard Wightman.

MOUNTAIN VERSES

Peace in the wooded stillness of the night,
And in the murmur of the waters, peace.
The world's hot heart in wonder seems to cease
From beating, lulled by far-off, starry light.
Lake, forest, fish that swims and bird that flies,
Wild beast, perchance that on the morrow dies —
Peace rests on all.
Yet is there unrest in my inmost soul —
A nameless yearning for an unknown goal,
A low, insistent call.

Hellman.

The first action of the mind to be noted is attention or concentration. This requires a pause. A period of silence, before a word or phrase is spoken, denotes that the speaker is receiving an impression. A definite touch on the central vowel of the principal word of the phrase expressing the impression received during the pause indicates the special point where attention is centred. The degree of vigor of this accent expresses the degree of attention, the definiteness of the impression, and the intensity of feeling.

The mind, in passing naturally from one impression to another, by the law of association of ideas, makes a progressive transition which causes a change of pitch between phrases in natural conversation.

Inflexion expresses the relation of words or ideas to one another, or the attitude of the mind toward what is said. A rising inflexion shows a suspensive attitude of mind or a looking forward; a falling inflexion a sense of completion or an assertive mental action. Inflexions are lengthened to reveal greater earnestness, and become abrupt to show more vigorous control. They are straight to express dignity, and circumflective or crooked to express mischief, sarcasm, or some patronizing, familiar, or undignified action of the mind. Imagination and feeling are revealed by modulations of the primary vibrations of the voice. The degree of volume expresses the degree of demonstrativeness. The emotional modulation of the rhythmic pulsations or movements reveals the relative value of successive ideas. Accordingly, these expressive modulations when analyzed are found to reveal directly specific actions of the mind, and their mental character can be easily recognized by any close observer of the phenomena of conversation.

These few simple variations and combinations constitute the vocabulary of vocal expression. How do they differ from the conditional responses of the voice to the mind? Some may be convinced that such expressional modulations are mental, and yet feel that any training is necessarily mechanical.

If we return once more to a study of surprise we find that the receiving of the impression causes certain actions, and the greater the impression the deeper and the more strongly accentuated will the voice conditions be established. The degree of surprise, excitement, or emotion directly determines the degree of these preparatory conditions.

These voice conditions are retention of breath, the opening of the tone passage, and various co-ordinations or sympathetic relationship of parts, which are primarily necessary in the production of tone.

They are established by actions of the mind and must precede expressive modulations of the voice. For example, during a pause there is not only the receiving of an impression but in proportion to its definiteness, and especially the emotional realization of it, will there be reception of breath, sympathetic expansion of the body and opening of the tone passage.

Exercise 5. Thinking and Voice Conditions.

The student should settle this matter definitely in his mind by taking the preceding again, or some other passage with vivid ideas, accentuating attention so strongly, as to receive definite individual impressions. Note that the actions of the mind not only cause voice modulations but correlate the parts concerned in tone production and establish right voice conditions, such as, control of breath and openness of the tone passage.

A SEA STORY

Silence. A while ago
  Shrieks went up piercingly;
But now is the ship gone down;
  Good ship, well manned, was she.
There 's a raft that 's a chance of life for one,
  This day upon the sea.

A chance for one of two;
  Young, strong, are he and he,
Just in the manhood prime,
  The comelier, verily,
For the wrestle with wind and weather and wave,
  In the life upon the sea.

One of them has a wife
  And little children three;
Two that can toddle and lisp,
  And a suckling on the knee:
Naked they 'll go, and hunger sore,
  If he be lost at sea.

One has a dream of home,
  A dream that well may be:
He never has breathed it yet;
  She never has known it, she.
But some one will be sick at heart
  If he be lost at sea.

"Wife and kids at home! —
  Wife, kids, nor home has he! —
Give us a chance, Bill!" Then,
"All right, Jem!" Quietly
A man gives up his life for a man,
  This day upon the sea.

Emily H. Hickey.

"Hark, how each giant oak and desert-cave
  Sighs to the torrent's awful voice beneath!
O'er thee, O King! their hundred arms they wave,
  Revenge on thee in hoarser murmurs breathe;
Vocal no more, since Cambria's fatal day,
To high-born Hoel's harp, or soft Llewellyn's lay.

"The Bard" Thomas Gray.

After a little observation anyone can see that voice conditions depend primarily upon a mental cause. A condition of voice is as much the direct effect of the mind as an expressive modulation. Unless these conditions are established by the mind the expressive modulations, such as touch, change of pitch, inflexion, and tone color or movement will not follow.

In our future studies the mental and emotional cause of voice conditions will be still more apparent. It is practically impossible to establish voice conditions mechanically by direct action of the will. Not only voluntary but involuntary muscles are concerned. There is a complex action of nerves and muscles which can be awakened only by right co-ordination through the stimulation of thinking, imagination, and feeling. Primary conditions of voice are spontaneously, involuntarily, and often unconsciously established by those of thought and emotion; but when we endeavor to make a tone merely mechanical or voluntary, independently of thought or the responsive conditions of feeling, these subconscious processes of the whole organism are either absent or perverted and the tone becomes abnormal.

In this book the voice is always considered as dependent upon thinking and feeling. In the voice there is a reflection of every act of the mind, the character of the emotion, the degree of control over it, the imaginative realization or animation, the traits of character, the poise of the speaker. All these and other conditions, such as the degree of discrimination or of concentration, the attitude of the speaker's mind toward his thought or his audience, his purpose, his sincerity and earnestness, are revealed in the conditions as well as in the qualities and modulations of the voice.

It is not denied that merely mechanical work upon the voice may at times accomplish good results, but this is because the student is unconsciously awakened and does not practice his exercises in a purely mechanical way. His love of his work, his endeavor to get hold of the principle, may lead him unknowingly to create an image in his mind, and his imagination, emotion, and feeling may supplement the ordinary results of a mechanical method. But why leave the student without specific directions in this regard? Without any explanation of the real principles involved? Why do so many beautiful singers have disagreeable voices in conversation? Is it not because their vocal training has been external and the result of artificial manipulation? Their singing of songs has little to do with their daily experiences. Singing is to them a routine performance, not the expression of deepest ideals and emotions. All the arts primarily belong to expression, and the arts of song, of speaking, of acting, of recitation, and of preaching are founded upon direct manifestation of thought and feeling through the body and the voice. If this is true how can we neglect the direct awakening of imagination and feeling? Man's voice is not a machine, but a living part of himself. The nerves that produce it are directly connected with the deepest motor centres and processes of thought and emotion.

In my judgment the reason why the improvement of the voice is so slow a process with teachers of both singing and speaking is because the methods of training are mechanical. There has been no special study of the psychology of exercises, no effort to associate an exercise with an awakening of imagination and feeling or to coordinate the subconscious with the conscious, the involuntary and spontaneous with voluntary conditions.

The improvement of the voice should always be associated with the development of imagination and feeling. When it is remembered that all great physiologists declare that vocal should precede language training; when it is understood that the voice expresses the first actions of the mind, in the process of development, it is surprising that the psychological bearings of vocal training have not received more attention. Notwithstanding the plea of the physiologists, the work of vocal training is still overlooked or totally disregarded in most schools.

III. MIND, BODY, AND VOICE.

Not only have we found our primary hypothesis true, but study of it has led to the discovery of other and deeper co-ordinations. The voice is dependent upon the body, and both voice and body upon the mind.[1] It is in the actions of the mind that we find the source of all co-ordinations. Improvement of voice or body without attention to the mind is folly. Mental co-ordination, when left to itself, may or may not follow, but the results will be inadequate at any rate.

We shall find in the course of our studies a co-ordination between the action of the vocal bands and the diaphragm; another between accessory and fundamental vibrations in tone; another between vowels and consonants, and many other co-ordinations. All of these must be secured by stimulating their mental cause. While local study is absolutely necessary, while part must be brought into direct union with part in a definite, technical exercise, still this local action must be performed simultaneously with a deeper co-ordination of the actions of the mind.

It will also become apparent that a disarrangement of certain natural co-ordinations is the basis of all great faults, even of the most extreme impediments of speech. Mere mechanical work upon these co-ordinations will not restore or develop them.

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[1] See psychic elements in training in the author's "Principles of Training."

On the other hand, mental actions alone or even the securing of an adequate impression will not necessarily restore co-ordination once perverted by bad habits. But this does not disprove the fact that originally these conditions were direct responses to the mind. In all training there must be enjoyment, some awakening of the whole being. A mere drudging performance is purely local and accomplishes but little even in physical training. An unenjoyed exercise will have little influence over the general health and may be injurious. If children are to receive benefit from an exercise or game, or from any phase of out-door life they must enjoy it. There must be a hearty participation even in play.

This principle applies still more to the voice than to the development of health. The voice is being trained not merely for health but to express thoughts and feelings. Physical exercise is a part of the life of the individual. The lungs breathe for the support of life but when we use this breathing for the production of tone, a more conscious and voluntary element is introduced. The vocal bands move with every breath we take, but are not brought together to the same extent or in the same way as in the production of tone. The producing of voice is more or less a voluntary, conscious, and rational act.

Exercise 6. Co-ordination of Mind, Body, and Voice — I.

Every one of these facts ought not only to be observed but also to be directly demonstrated by some exercise. Render a passage full of fervor, and note that in proportion to the depth of activity in a man's being the whole body as well as the vocal mechanism is brought into unity with each idea in a rhythmic sequence.

> Arise, away, for the King; speed away, speed away;
> Ride, ride, with red spur, there is death in delay;
> Race, race for your life ere the breaking of day!

"Here it is, gentlemen! Walk up! walk up, gentlemen! walk up! walk up! Here is the superior stuff! Here is the unadulterated ale of Father Adam! better than cognac, strong beer, or wine at any price: here it is by the hogshead or the single glass, and not a cent to pay. Walk up, gentlemen, walk up and help yourselves!"

"Town Pump" **Hawthorne.**

Hark! fast by the window the rushing winds go,
To the ice-cumbered gorges, the vast seas of snow!
There the torrents drive upward their rock-strangled hum;
There the avalanche thunders the hoarse torrent dumb.
— I come, O ye mountains! Ye torrents, I come!

From "Switzerland" **Matthew Arnold.**

PEACE.

Awake, awake, the stars are pale, the east is russet gray:
They fade, behold the phantoms fade, that kept the gates of day.
Throw wide the burning valves, and let the golden streets be free,
The morning watch is past — the watch of evening shall not be.

Put off, put off your mail, ye kings, and beat your brands to dust,
A surer grasp your hands must know, your hearts a better trust;
Nay, bend aback the lance's point and break the helmet bar;
A noise is on the morning winds, but not the noise of war.

Among the grassy mountain paths the glittering troops increase;
They come, They come, —How fair their feet — they come that publish peace.
Yea, victory! fair victory! our enemies' and ours!
And all the clouds are clasped in light, and all the earth with flowers.

Ah, still depressed and dim with dew; but yet a little while,
And radiant with the deathless rose the wilderness shall smile;
And every tender living thing shall feed by streams of rest;
Nor lamb shall from the fold be lost, nor nursling from the nest.

For aye, the time of wrath is past, and near the time of rest,
And honor binds the brow of man, and faithfulness his breast, —
Behold, the time of wrath is past, and righteousness shall be,
And the wolf is dead in Arcady, and the Dragon in the sea!

John Ruskin.

II

NATURE OF TRAINING

An understanding of the processes of tone production and even of the nature, function, and relation of the parts concerned in producing tone, though very necessary as a preliminary step, will not of itself improve the voice. This book is not a mere discussion of the processes of tone production, but is a practical work upon the training and improvement of the voice. Accordingly, it is necessary to recognize in some measure a broader science — that of training.[1]

Training is a specific application of the processes of nature to the improvement of an individual organism. After ages of observation and investigation man has come to understand something of the progressive unfoldment which is as universal as life. He has discovered some of the laws that govern the processes of growth and development. He has found everywhere two opposing tendencies, an upward and a downward one; that organisms under certain circumstances may degenerate, but by exercises can be so developed as to discharge their functions more adequately. Man has applied the laws of nature and learned how to combine two different fruits and make a new one far better than either of the originals. He is able so to train animals as to perform feats of strength and skill. Though strangely slow to apply these laws to his own development he has learned in some measure how to improve his own organism. Training is a process of preventing perversions or degeneracy, of establishing normal conditions, and stimulating advancement in accordance with the laws of growth and development.

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[1] The reader will find a more adequate and complete discussion of this science in the author's book "Principles of Training."

IV. EXERCISE AND TRAINING

The training of the voice is based on an understanding of the vocal mechanism, and especially of the relation of part with part in producing tone.

The whole subject of training is misconceived. To many any movement or action, however reckless or careless, is an exercise. Even the best and most carefully prescribed exercise, when practiced without thought or specific attention to fundamental conditions, may produce an effect directly opposite to that intended.

Especially are such misconceptions found in the development of the voice. Any kind of tone is regarded as an exercise. Frequently teachers adopt those which are most bizarre simply to arrest attention by their extravagance. The effect of such practice is nearly always abnormal and injurious.

Students themselves have such misconceptions of the voice that they think its improvement depends upon some trick or rule to be conveyed to them by the teacher at once without the necessity of practice.

Others feel that the exercise has virtue in itself no matter how it may be practiced.

I. WHAT IS A TRUE EXERCISE?

The subject of training is difficult. A few suggestions are needed here as to the peculiar nature, not only of training in general, but especially of a vocal exercise. This may be best presented in a short space by showing some of the elements constituting a true exercise.

1. A true exercise must have point.

Vocal training demands careful study not only of the whole but an adaptation of a simple and definite action which will develop just the part or function necessary.

An exercise is like medicine. It implies diagnosis and careful application of a special remedy, and the simplest is usually the best.

2. The true exercise points from the abnormal toward the normal.

The idea of development and training implies a sense of an ideal and the possibilities of attaining it. An exercise, in general, is something that we practice in order to attain some ideal possibility. Indirectly also it implies the existence of perversions or departures from the normal on account of wrong practices and habits. Accordingly, the student must distinguish between the normal and the abnormal and during all his work must keep in mind the ideal state at which he aims, while turning directly from the negative condition he is to correct.

The positive is always better than the negative. A negative battle against negatives is destruction, not training. Hence, though it is necessary, especially where faults are extreme and perversions have become so deep as to be in the main unconscious to the individual, that some sense of the nature of the abnormal condition must be realized, training can never be purely negative. The development of consciousness of a fault is merely a temporary expedient, and it is better, wherever possible, to secure a sense of the normal without any relation to the abnormal. It is not wise, for example, to give children or others whose voices are moderately normal any direct attention to the nature of faults. The mind must be turned upward. Training is the use of nature's steps in order to lift ourselves. Accordingly, the ideal must be ever present, the sense of possibilities continually awake. The instinct of the student, the sense of normal conditions, which are always present, must be quickened, and exercises given in a way to awaken enthusiasm, courage, and confidence.

3. The exercise must localize function. Every part of the body has a definite function to discharge, and training must accentuate the process of differentiation. In all animals of a low type we find an absence of localization of function, and we note the same in a misuse of the voice. In all faults we find muscles active which are not intended to be so, and parts discharging functions contrary to their nature, while the agents which should perform these are either inactive or constricted.

It is a help, for example, in studying throatiness, to recognize that muscles whose function belongs to swallowing should be passive in tone production.

4. The true exercise will develop the primary or distinctive actions of each agent concerned. Every agent of the body, and every part or muscle concerned in tone production, possess certain activities which specially belong to it. Note, for example, the distinctive actions of the lips. In an ordinary articulation the lips are often protruded from the teeth or compressed against them. But both actions, while possible in pantomimic expressions do not belong to the normal production of speech. The lips are pressed together and separated for "p" or "b." They are rounded for certain vowels, but in no instance are they called away from the teeth or unduly pressed against them. Accordingly, loose or careless exercises, working the lips in all sorts of ways to awaken their activity and develop "distinctness in articulation," in ninety-nine cases out of a hundred develop mouthing. But by working upon the distinctive actions concerned in speech, improvement can be initiated at once, and no fault will result.

Again, observe that the soft palate and the back of the tongue must approach each other easily and normally, but without constriction, and must separate widely. Any fault in this action will result in nasality or throatiness, or in both. Accordingly, by taking a person afflicted in this way, by showing him these distinctive actions and developing flexibility of the parts, the power to bring them together easily and to separate them without labor or constriction, will go to the local cause of such faults and save long delay and embarrassment.

5. A vocal exercise will be helpful in proportion as it is the accentuation of a fundamental action. There is little difference between a fundamental and a distinctive action. The latter is always fundamental, but the former is not necessarily distinctive. Of the fundamental actions of the lips a distinctive one is that concerned in expression. Swallowing is an elemental action from a vital point of view, but the constrictors of the pharynx, and other muscles, concerned in swallowing must be quiescent in speaking. Some of the worst faults of voice are due to a failure to keep the animal muscles used in swallowing at rest while the more human ones are thus given room to perform their functions in speech.

A profound remark is attributed to François Delsarte: "The accentuation of fundamentals brings power, but the emphasis of accidentals produces mediocre results." This refers to the action of the body, but the principle is as true of the modulations of the voice or articulation. The agent has a few fundamental actions, and over against these many accidental or secondary movements. The tongue seemingly can move in an innumerable number of ways, but only a few of these are necessary to speech. In training, therefore, in proportion to the development of these fundamental actions and the elimination of such accidental or secondary ones do we secure control over the tongue. Again, a man may breathe in an innumerable number of ways, and many of these will be labored and abnormal. True training will eliminate them, and establish those primary actions of breathing which belong to or are universally characteristic of a human being. When these are developed ease, freedom, and power will be established in the voice.

Fundamental actions are always simple; accidental ones usually complex. The former are at the basis of all others, and can be brought directly into right relation to the will. When we obtain control of its fundamental actions we have command of an agent, but the performance of accidentals may bring no genuine response or control of an agent or of its functions. True localization of function depends upon the mastery of fundamental actions.

6. The true vocal exercise co-ordinates the actions of different parts. We may have to work, for example, upon the action of the tip of the tongue in making "t" or "d," but when we begin to use the action in speech we find that our work has been labored and exaggerated because not co-ordinated with the vowel action. This principle applies more or less in the training of the body, but has a more distinctive application in the development of the voice. The discovery of these co-ordinations and the observation of their peculiar action have been of greatest assistance to me in vocal training, and one of the special objects of this book is to show their nature. It is more than twenty-five years since I observed the first one and its specific action, and recently I noted another of great importance.

I have no doubt that further study of the nervous system and motor centres, and especially experiments in the laboratory, may prove the existence of others, and possibly may simplify and combine some of those already discovered; but to my mind, the noting of these co-ordinations is of great help and solves many mysteries, among them the difficulties of stammering, stuttering, and other impediments, as well as the simple yet universal misuses of the voice.

The interrelations of the motor areas of the brain are extremely curious. It is a wonderful fact that in the higher development of an organism a greater number of channels are opened up from centre to centre, while many of the higher functions depend upon the simultaneous union of many motor centres.

7. A true vocal exercise is concerned not so much with actions as with conditions.

Of course distinctive actions must be practiced in order to establish proper conditions, but only after the fundamental actions of different agents are rightly co-ordinated and brought into richer response to the mind do we begin to secure right tone conditions.

It may be a little difficult to explain the difference between actions and conditions. Certain actions are necessary in attuning an instrument, but the result of these when the instrument is in tune is a condition. The instrument is put in tune by many actions which result in one condition.

A man may open his tone passage. He may take breath, but have no condition favorable to tone. It is only when the two are simultaneous and co-ordinated, when they appear to be produced by one motor centre, when they seem to follow from a certain feeling or reception of an impression or intention to speak, that the condition results.

This is one of the primary difficulties in vocal training and expression. A student will be certain that he has done the external actions of an exercise correctly but he may not have the exercise. He may be sure that he performs the two actions together but still not realize how they may be done together yet not co-ordinated. The exercise is mastered only when it results in a condition which has sympathetic connection with the whole being.

As the whole violin vibrates in tone, as the tone of a piano becomes imperfect when the least part is abnormal, so the voice is the result of the conditions of the entire being and body. The most delicate local exercise must bear some relation to the imagination and feeling and also to the muscular conditions of the body.

8. The true exercise must be practiced with great care, with attention, imagination, and feeling to accomplish the best results. An exercise after all is the putting of thought and feeling into action in a way that will establish conditions; hence the necessity on the part of the teacher to inspire students to employ imagination and feeling, even in the practice of what seems to be the most technical or even mechanical of exercises. Only in this way can fundamental principles of training be applied and true results be realized. Only thus can we establish normal conditions, properly localize functions, exercise elemental actions, establish right coordinations and develop that higher unity of being and body necessary to the most expressive power of the human voice.

II. HOW CAN A NATURAL ACTION BE TURNED INTO AN EXERCISE?

Where can any action be found, however fundamental, which will fulfill all these requirements? Are not such suggestions merely visionary? Is it possible for an exercise to affect simultaneously both mind and body? Can the principles found in evolution or development in nature by any process of training be applied to the education of the human voice and body?

1. Attention may be practiced as an exercise. If we study the primary elements of thinking, we learn that normally one individual impression succeeds another in a rhythmic sequence.

If we carefully observe our own thinking, in regard to its primary elements, we find ourselves centering attention upon one point, resting here for a moment, and then leaping to another. The thought may stay upon an image for so short a time, that the mind receives a mere superficial impression from each centre of attention; or, on the contrary, the mind may stay its attention longer upon each idea until a definite mental conception is formed and felt. This may be so vivid as to correspond more or less with the concrete object. Such impressions, however, may be merely literal and lack any imaginative or emotional action. Many teachers have talked too much about the vividness of the idea. The main thing is not the degree of literalness with which an object is seen, or a sound heard, for minds act differently, but that the idea, the conception, be realized and felt.

Expression is a succession of responses. First, attention is centred upon an idea. When such attention is contemplative, imagination responds, and if this is right, feeling awakens; and the expansion of the body and action of breathing follow with the co-ordinate relaxation of the tone passage.

Exercise 7. Intensity of Impression.

In general, it is the concentration and the awakening of the conception which leads the way to intensity of realization, while imagination, emotion, and the organism respond. It is a natural tendency of the mind not merely to think an idea but to feel it. A complete mental impression seems to be not only a union of perception with apperception, but a response in feeling strong enough to cause conditions or actions.

THE DAISY

With little white leaves in the grasses,
  Spread wide for the smile of the sun,
It waits till the daylight passes
  And closes them one by one.

I have asked why it closed at even,
  And I know what it wished to say:
There are stars all night in the heaven,
  And I am the star of the day.

Rennell Rodd.

Increase of attention individualizes and acentuates impressions and causes voice conditions. When attention is thus properly concentrated and the impression is composed of thought, imagination, and feeling, it stimulates breathing and establishes the true conditions of tone. In passing from one impression to another a pause is necessary and natural, its length being determined by the degree of intensity in the realization of the impression.

Now, if we study carefully the primary actions of the mind of a child we find these individual centres of attention clearly pronounced. Later in life, especially in the case of those who have engaged in such abstract thinking, the mind dwells more upon general relations. In all thinking there is the centre of attention on individual idea, and at the same time a relation of this to others and to a broad abstract meaning. The educated man accentuates general ideas or abstractions; the child emphasizes the individual impression.

Exercise 8. Individualization of Impression.

The real artist, the one who wishes to use his voice, must learn to accentuate both, but he must first become a little child. Let anyone take such a passage as the following and render it to a young boy or girl, and this individualizing action will be realized.

MY BED

My bed is like a little boat;
  Nurse helps me in when I embark;
She girds me in my sailor's coat
  And starts me in the dark.

At night I go on board and say
  "Good-night" to all my friends on shore;
I shut my eyes and sail away
  And see and hear no more.

All night across the dark we steer;
  But when the day returns at last,
Safe in my room beside the pier,
  I find my vessel fast.

R. L. Stevenson.

Little Robin Redbreast sat upon a tree,
Up went Pussy cat, and down went he;
Down came Pussy cat, and away Robin flew;
Says little Robin Redbreast, " Catch me, catch me, do! "

Little Robin Redbreast hopped upon a wall,
Pussy cat jumped after him, and almost got a fall,
Little Robin chirped and sang, and what did pussy say?
Pussy cat said, " Mew! " and Robin flew away.

Our education tends too frequently to overlook the function of nursery rhymes. The individualization of the impression is a first and necessary stage in the growth of the child's mind. Besides, it must be developed in preparation for speaking, for writing, and in fact, for all mental power. The individualization of the impression should be developed and retained even with the acquisition of the more logical and abstract power of generalization. There is really no antagonism between a vivid individual idea in union with the broadest generalization. A great speaker especially must have the power of intense and vivid impressions as well as ability to relate successive ones to one another, or to give one in a way to suggest a relationship to the broadest general conception of the speaker's thought.

If it is the individual impression which establishes our primary condition of voice, then we must find some method of accentuating individual impressions. If the slighting of them and the mere generalizing action of the mind, causes one to breathe too seldom and to fail to co-ordinate the centre of fullness or activity of breathing and passivity of the throat, then necessarily the first important step in the establishment of such conditions must be to find some specific action of the mind that will co-ordinate thinking and feeling.

Exercise 9.
Impression
and Vocal
Responses
—I.

The student can easily demonstrate to himself the power of an individual impression by reading some passage, holding the general meaning in his mind, and then picturing each idea specifically, intensifying the individual impression. The effect upon the voice conditions can be seen at once.

Two prisoners looked out from behind their bars
One saw the mud, the other saw the stars.

Unknown.

THE EAGLE

He clasps the crag with hooked hands;
Close to the sun in lonely lands,
Ring'd with the azure world, he stands.

The wrinkled sea beneath him crawls;
He watches from his mountain walls;
And like a thunderbolt he falls.

Alfred Tennyson.

ON FIRST SEEING THE OCEAN

And this is the dreamed-of wonder!
  This — at last — is the sea!
Billows of liquid thunder —
  Vocal immensity!
But where is the thrill of glory
  Born of a great surprise?
This is the old, old story;
  These are the ancient skies.

Child of the prairie expanses,
  Often the soul of me
Hungered for long sea-glances;
  And here — at last — is the sea.
Yon goes a sea gull flying;
  There is a sinking mast;
This is the ocean crying!
  This is the rune of the Vast!

But out in my mother country,
  Ever since I was born,
This is the song that my brother Winds
  Sang in the fields of corn.
And there, in the purple midnights
  Sullen and still with heat,
This is the selfsame drone that ran
  Over the heading wheat.

From "Man Song" **John G. Neidhardt.**

2. The exclamation may serve as an exercise for the co-ordination of mind, body, and voice.

In human language we find a class of words called interjections because they are thrown in and have hardly any symbolic character, and are merely so many inarticulate sounds which do not symbolize specific ideas. An interjection is sometimes called an exclamation, which etymologically means to cry out.

Now the reason these are slighted is because they contain more pantomimic than verbal elements of expression. On account of this very fact a study of these primitive outcries will throw light upon the use of the voice.

An exclamation is the effect of an impression. It is so direct that it may be a mere outcry. The mind has not had time to formulate a phrase or word. Hence, it accentuates the spontaneous and primary union of the faculties and powers. Thinking, imagination, and feeling, at any rate, are all active.

Some have doubted whether exclamations should really be called words. They are always associated with action and are primarily mere vocal expressions.

Exclamations may be regarded as the crude beginning in which words, tones, and actions are united. The exclamation is hardly a symbol; it is rather a sign, and the tone and action are blended into a primitive oneness. There is little differentiation between the action and the tone or the tone and the articulation of the word that is used.

The significance of exclamations has been overlooked. It is strange that no one has ever noticed their value in vocal training. They will serve as a great aid to teachers in establishing fundamental conditions of the voice, for though they lack linguistic importance they may be of great value in education and should not be treated lightly or without careful study.

From investigations of scientists into the early history of speech it appears that language was at first crude and lacked qualifying words, that it reflected the more child-like attitude of the primitive mind.

"The lowest form of language," says Herbert Spencer, "is the exclamation, by which an entire idea is vaguely conveyed through a single sound, as among the lower animals. That human language ever consisted solely of exclamations, and so was strictly homogeneous in respect of its parts of speech, we have no evidence. But that language can be traced down to a form, in which nouns and verbs are its only elements, is an established fact. In the gradual multiplication of parts of speech out of these primary ones — in the differentiation of verbs into active and passive, of nouns into abstract and concrete — in the rise of distinctions of mood, tense, person, of number and case — in the formation of auxiliary verbs, of adjectives, adverbs, pronouns, prepositions, articles — in the divergence of those orders, genera, species, and varieties of parts of speech by which civilized races express minute modifications of meaning — we see a change from the homogeneous to the heterogeneous."

If we now return to the surprise or exclamation, upon which our first hypothesis was based, it will be seen that the simultaneous taking of breath, opening of the tone passage, and expansion of the body are the direct effect of the action of the mind which causes the shout or outcry. A definite impression, single and intense, causes not only co-ordination and activity in breathing and openness of the tone passage, but brings the body into immediate response to the mind. Accordingly, in such an exclamation not only do we find action in the middle of the body, co-ordinated with a passive throat, but discover that these actions or conditions are the direct response of the organism to the vivid impression received in thought.

If we observe carefully many such conditions, we shall learn that the taking of breath is always directly caused by the reception of an impression. If a man drifts from one idea to another, receiving only a superficial impression of any, we may not observe this tendency. But the absence of response in weak impressions is in itself a proof of the law. In general, whenever the mind has its own rhythmic pulsation, whenever it normally receives a definite impression before expression, the rhythm of breathing is dominated by that of thinking. A man who thinks in intense rhythmic pulsations will breathe frequently. Men inhale too little breath in speaking, but by increasing the definiteness of each successive impression, the amount of breath, as well as the frequency of breathing, may be increased.

Hence, we find a fuller co-ordination not only between the parts of the vocal mechanism but between this as a whole and the mind. The conceptual mental action, the imaginative and emotional realization of ideas directly cause conditions of voice. The mind correlates distinct parts into sympathetic union and establishes the whole as a vocal instrument.

Here we have a key to the training of the voice by means of mental action, or at least one step in such development. The basis of all true vocal exercises must be the accentuation not only of the volitional act or the movement of the physical part but of the mental and emotional activities. In all training of the voice, imagination and feeling must be awakened, and the mind left free to realize and enjoy; but attention must be so disciplined that the increase of concentration arouses imagination and feeling still more and deepens and sustains the impression in all its complete elements.

We discover here something simple, practical, and elemental. Since exclamations express single ideas, or rather impressions of a distinct situation; since they are rather signs than symbols, we find the basis, at any rate, of an exercise needed for the improvement of the voice. An exclamation is also a safe exercise to give to all. It will stimulate and develop mental and emotional activity, and cause greater responsiveness of the vocal organism. Minds that have become too abstract or general lose these responses. This exercise gives them a method of returning to childlike conditions, and helps to restore the mind to its normal energy and influence over the body.

Exercise 10. Impression and Vocal Responses — II.

"Joy! joy!" she cried; "my task is done —
The gates are passed, and heaven is won!"

From "Paradise and the Peri" **Thomas Moore.**

"Take her, O bridegroom, old and gray,
Take her to thy protecting arms,
With all her youth and all her charms!"

From "The Building of the Ship" **Henry Wadsworth Longfellow.**

Mark! Mark! A spark gleams in the dark.

From "Tiger Bay" **Robert Buchanan.**

Adieu, adieu! my native shore fades o'er the waters blue;
The night-wind sighs, the breakers roar, and shrieks the wild sea-mew.
Yon sun that sets upon the sea we follow in his flight;
Farewell awhile to him and thee, my native land — Good Night!

From "Childe Harold" **Byron.**

We ascertain also how to cope with one of the most discouraging conditions encountered in training speakers. The ordinary theological student, for example, has from seven to ten years in the preparatory school, four years in college, and three in the seminary. Nearly all his work has been abstract. In endeavoring to gather general ideas he has lost much of his ability to realize vivid, individual impressions. Although a scholar he is a poor speaker. He can think in a library or at his desk but not upon his feet. He lacks the power to bring all his faculties together, and especially to co-ordinate feeling with thinking and to present a general principle with earnestness and intensity.

Here then we have a key to the training of the voice by accentuating mental action, by sustaining and developing the concentration of the mind, by allowing our imagination freedom in the creation of a mental image, by increasing the power to vivify successive impressions and to realize them intensely in feeling.

One proof of the principle here discussed may easily be noted by everyone in observing what stories or poems are popular with children or in taking a poem or passage full of great abstract thought and contrasting it with a so-called popular one, which will thrill or stir an ordinary audience. Is there not here a great neglect in education? In most successful primary schools attention is given to individual impressions in connection with the study of words, but rarely is this step related to the training of the voice. The exercise of the voice, according to Mosso and other physiologists, should precede language exercises, because the motor centres will thus be stimulated in a more natural order. Vocal exercises, however, not only belong to the training of children but should be continued more or less through life.

To move men ideas must always be vividly realized. In all art knowledge must be intuitive.

Since the exclamation is the "lowest form of language," it is also complex because at the beginning of language, action, tone, and words were confusedly united, or at least had not been completely differentiated, and this primitive condition of language is probably shown to us by the exclamation. At any rate, the exclamation reveals most forcibly the fundamental actions of the body and voice and the establishment of conditions of tone. Since an exclamation reveals an "entire idea," it shows the most primary response of the conditions of tone to the mind. Hence, it is the best exercise for the co-ordination of the psychic with the technical conditions of tone.

From the quotation from Spencer we obtain another hint. If nouns and verbs were at one time the "only elements," then we can choose primitive sentences, definite propositions with one noun or verb or with only verbs, as in commands, and practice these as an exercise of that generic action of the mind where a complete conception causes the utterance of the word.

We must not forget that training is an act of deliberative evolution. If we follow the original steps that nature has taken in localizing some specific function we can improve a weak body or voice by beginning there and taking these steps again, consciously and deliberatively accentuating the fundamental conditions of each.

Accentuation of an exclamation will stimulate in the most fundamental manner the motor centres of human language. Right practice of an exclamation or of a simple command or word will cause conditions and open the throat.

It also goes without saying that since action precedes speech as a language, there should be accentuation of the pantomimic actions which form conditions of tone.

We have here a hint as to the right development of phrasing. These fundamental actions of the mind in the use of primitive words remain fundamental, even though adjectives and other qualifiers be added. Hence in practice immediately after the accentuation of individual words, all the qualifiers are gathered about one of these, — that is, adjectives around nouns and adverbs and adverbial phrases around verbs, thus making the whole phrase of the same co-ordinate condition that is found in the primary words.

If we observe the difference between various classes of persons, from children to the highest scholars, from poetic minds to the most abstract thinkers; and between all states of mind, from great excitement to indifference or mere abstract or complex thinking; we find that in proportion to the vividness of the successive ideas, the vigor of the impression produced upon the mind, true voice conditions are more pronounced; that the more the speaker receives individual impressions, as children do, the more are the primitive conditions of voice observed.

Do we not, therefore, discover from the psychological as well as from the physiological point of view an illustration in an exclamation of some of the primary principles of vocal training?

It is not enough to recognize the general effect of the mind upon the voice. It is necessary to find some specific mental action which will cause voice conditions. Neither thinking in general nor emotion necessarily improves the response of the voice. In voices perverted by bad habits even intense mental actions may increase abnormal conditions instead of establishing normal ones. Specific mental actions must be found which will restore and emphasize normal actions and conditions. Hence, there must be a more careful investigation as to the fundamental actions of the mind and the normal responses to these.

Returning to our first illustration and the principle that mental actions cause activity in the middle of the body and passivity of the throat, by observing further we find that not only a sudden surprise but any vivid individual impression causes these voice conditions.

Impressions are individualized more not only in children but in persons of a poetic or artistic temperament and with oratoric instinct. Probably persons with pleasing voices have always a great power of individualization of thinking. They are especially capable of receiving specific impressions. To use a logical term, their ideas have greater "intention," while persons with rather poor voices have greater "extension." John Stuart Mill used the terms "denotation" and "connotation"; a word standing for a single idea is said to denote it; a word standing for a large number of abstract qualities, to connote them. But the use of words is only the naming of a process which varies in different minds. Though two speakers or readers may use exactly the same words, the degree of intention and extension, of denotation and connotation, may differ widely in the two minds.

It is a well-known fact that persons who go into deep philosophical and abstract mathematical or speculative work finally acquire a hardness of the voice. The resonance positively decreases. On the other hand, those who study literature, especially with a sympathetic method and with vocal interpretations, find that the voice improves in resonance.

At one time I made an investigation of several cases. I found one college student, whose voice was cold and colorless, to be utterly unable to picture even a flower in color; his thinking was entirely abstract. He had a kind of mental color blindness. Naturally there was no color in his voice, since tone color has a decided analogy with visual color.

I have found in all cases where there was a lack of visualizing, that is, where the thinking was merely symbolic, that the voice had become cold and hard. Of course, the qualities of the voice differ in different persons, and from other causes such as health conditions. Note also that many of the ablest thinkers and philosophers who have developed such a mental condition have acquired it chiefly late in life. Though the voice has deteriorated, yet because good vocal habits were more or less established in early life, their beneficent influence is manifested through the years. Richness in resonance is found in those having vivid imaginations and power of feeling.

Exercise II. Co-ordination of Mind, Body, and Voice — II.

In demonstrating the value of an exclamation in co-ordinating mind, body, and voice the student must observe that it is not merely the exclamatory words but the exclamatory phrase. In the following lines not only the exclamation "Hurrah!" calls for co-ordination but also the phrase, "Give way, my lads, give way!"

> Hurrah! hurrah! the west wind
> Comes freshening down the bay!
> The rising sails are filling,
> Give way, my lads, give way.
>
> Whittier.

3. Lyric poems may serve as a means of improving the voice.

If we realize that imagination and feeling must be awakened in the training of the voice, we can at once see the importance of studying the best literature.

Poetry is the expression of imagination and feeling. It is a realization of life. The higher its quality, the deeper the impression of the heart, and the greater the simplicity of its expression.

To deepen our impressions, or to concentrate our attention upon individual ideas, so as to co-ordinate imagination and feeling, there is no better exercise than the study of poetry, especially the reading of it aloud.

Of all forms of verse, however, lyric poetry is most important for the development of the voice. A lyric produces practically one impression, — it is the intense realization of one idea. It is imaginative and emotional and calls for the most intense realization of vivid individual impressions.

Accordingly we can trace a clear analogy between the individual impressions of an exclamation and of a lyric poem. We can see also why the lyric was probably the earliest form. The song begins with the cradle. It is an intense, sustained impression, and on this account necessarily accentuates the primary voice conditions.

The student cannot be too strongly recommended to make a careful study of lyric poetry. Professor Charles Eliot Norton recommended students to memorize some of the best lyrics and to read them aloud frequently. This exercise not only awakens imagination and feeling, but co-ordinates these with attention. When properly rendered, such an exercise also accentuates proper voice conditions. It increases the breathing; stimulates sympathetic activity through the body; and opens the tone passage. It establishes the fundamental co-ordination of the intellectual, emotional, and imaginative actions of the mind with normal conditions of voice and body, most favorable to the ideal production of tone, and of all the higher modes of expression.

Exercise 12. Lyric Impression and Exaltation.

The student should first practice simple and animated lyrics, full of joy or admiration of nature. The right practice of the following, for example, may be made to awaken imagination, feeling, sluggish breathing, and the deepest responses of body and voice.

THE BLUEBIRD

I know the song that the bluebird is singing,
Out in the apple-tree where he is swinging.
Brave little fellow! the skies may be dreary, —
Nothing cares he while his heart is so cheery.

Hark! how the music leaps out from his throat!
Hark! was there ever so merry a note?
Listen awhile, and you 'll hear what he 's saying,
Up in the apple-tree swinging and swaying.

"Dear little blossoms down under the snow,
You must be weary of winter, I know;
Hark while I sing you a message of cheer!
Summer is coming, and spring-time is here!

"Little white snow-drop! I pray you arise;
Bright yellow crocus! come, open your eyes;
Sweet little violets, hid from the cold,
Put on your mantles of purple and gold;
Daffodils! daffodils! say, do you hear? —
Summer is coming, and spring-time is here!"

Emily Huntington Miller.

The ways are green with the gladdening sheen
Of the young year's fairest daughter.
O, the shadows that fleet o'er the springing wheat!
O, the magic of running water!
The spirit of spring is in everything,
The banners of spring are streaming,
We march to the tune from the fifes of June,
And life 's a dream worth dreaming. . . .

What nature has writ with her lusty wit
Is worded so wisely and kindly
That whoever has dipped in her manuscript
Must up and follow her blindly.
Now the summer prime is her blithest rhyme
In the being and the seeming,
And they that have heard the Overword
Know life 's a dream worth dreaming.

W. E. Henley.

V. CLASSES OF EXERCISES

There are many ways of doing wrong but of doing right there are few. Conditions can be perverted easily, but to establish normal ones requires the following of a straight and narrow path. Can we find a few modes of stimulating right voice conditions?

Two elements are found in all practice, either of which may be the more accentuated, thus giving rise to what may be loosely called two kinds of exercises. The first of these primary elements is the accentuation of the cause, — that is, the awakening of the mental and emotional activities which directly use the parts and tend to co-ordinate them or to establish right conditions of voice. The second is the control and right action of the organs concerned. While both are employed in any true exercise, it is to be noted that when attention is primarily directed to the accentuation of the mental cause or action it may be called a psychic exercise. When, however, it is definitely focussed upon the specific and fundamental actions and conditions, or the functions of some part, or the co-ordination of a group of parts, and the will is directed to restoring or normally increasing these, it may be named a technical exercise.

Every exercise must, on the one hand, be as psychic as possible, for any primary action of an agent can only be normally produced by awakening the cause. On the other hand, no exercise must be vague or indefinite, but must have as specific a focus of the will as possible upon a fundamental need.

In a vocal exercise the psychic element, or such an emphasis of the mental or emotional impression as will cause a vocal condition, is important; because in no other way possible can all the spontaneous, unconscious, involuntary elements be awakened into action. A technical exercise, however, or the direct accentuation of movement or action of a part by the will in order to secure the right action directly, is also important because attention can be definitely focussed upon the part or seat of the abnormal action. The ideal of an agent or its functions or fundamental actions and its relations to all others can also be formed. Hence, technical practice is more adequate to correct specific defects, and must always form a part of true training.

A psychic exercise is spontaneous; a technical one more deliberative. In the former the consciousness centers upon realization and impression; in the later the action of the parts, or the processes or performance is more in mind.

A psychic exercise can be carried forward to a direct application in the work of expression. A technical one is more preliminary. It is the attuning of the instrument before it is played upon, and is forgotten in the act of expression, and known only by its results, as the tuning of an instrument is forgotten by the player.

Technical exercises are more adequate for the correction of extremely abnormal conditions where personal and hand to hand training is possible. Psychic exercises should precede, and should also follow technical ones to prevent the latter from becoming mechanical, perfunctory, and artificial. Both classes are necessary with all persons, but the psychic must be more accentuated with children, and is safer for large classes. It is also well adapted for simple, progressive development in the case of those who have normal conditions of voice. But in such cases the teacher must have a correct knowledge of technical needs and of exercises in order to apply a psychological exercise as definitely as possible. Such an exercise, in fact, must not be vague. It demands great care in its application, fully as much as the technical kind, though of a different kind. The attention of the teacher must be directed to the whole intellectual, imaginative, and emotional nature of the student, and all must be blended into harmony, and yet so emphasized as to accomplish a specific end. Not every practice of expression constitutes an exercise; even the psychic demands a focus and such practice as to accomplish a specific end.

These two phases of training, however, by no means include all the elements of development. Nature, for example, uses many means of discipline. The first we find is play. Play results from the overflow of energy or emotion or any spontaneous desire for activity, which is implanted in the nature of every animal. This should be the fountain-head of all kinds of exercises and training.

Can we apply this principle of play in the training of the voice? It not only can but must be used in all vocal training. The voice is the product, to a great extent, of spontaneous activities. Right breathing is associated with a certain sympathetic and exhilarated expansion of the whole body which can hardly be secured mechanically. The voice demands a diffusion of emotion into all parts, the awakening and harmonizing of almost all activities of mind and body, and this is secured best by the spirit of play brought under control.

The psychic elements especially unite with this spirit and enable exercises to be more enjoyed. Note the assignment, for example, of an exclamation. This requires of the student a subjective solution of conditions by emphasizing a mental action. He must practice exercises in such a way as to discover certain principles or emphasize primary actions and conditions, but in the meantime he must not give up his spontaneous enjoyment of dramatic, lyric, or other play instincts which are involved in every line of true literature, and every modulation of the voice must be continually awake. In the practice of any exercise the teacher must have the enthusiasm and the art of so kindling the imagination that, though the will is focussed definitely upon a point, a certain exhilarated enjoyment results in making tone.

The teacher must apply the results of every exercise to natural vocal expression. He should assign some song, poem, paragraph, story, or speech, that students may test as far as possible all the artistic enjoyment of complete expression.

Another form of training is that which is known as physical gymnastics. This is a direct and voluntary accentuation of muscular action that the weak parts may be strengthened or different ones brought into better relationship.

One of the dangers in vocal training is a confusion of the principle of physical gymnastics with training for expression. Such gymnastics require great voluntary effort. In almost every instance in the gymnasium strength and vitality are the aim and are greatly augmented. To this end the exercises are labored and the element of effort is directly increased.

If such effort be applied to voice exercises constriction and labor will result. It exaggerates the use of the will and eliminates the spontaneous, imaginative, and emotional elements, and in many cases has practically ruined the voice.

If students have physical weakness, and for any reason physical gymnastics are needed, they should be assigned with great care and entirely separate exercises and periods of practice be prescribed. On the one hand, I have often found students hindered in vocal exercises by work in the gymnasium; and on the other, I have sometimes with great advantage sent them there for weak conditions. In all such cases I have exhorted them to see the teacher in charge, and to obey carefully his instructions. I sent also my own suggestions to such a teacher and have closely observed the effects in the students. Teachers in such related subjects should always co-operate. One of the most powerful of all agencies for good or ill is a movement.

Exercises may vary not only on account of the elements to be emphasized, but by reason of the aim. Occasionally, for example, as in the preceding observation, the student is simply studying and taking note of a natural action. He is not emphasizing anything, but trying to find the way in which an involuntary action is produced or a fundamental principle for spontaneous actions.

Again, he may use a psychic exercise in two ways. He may take something as specific as an exclamation, feel and imagine the situation, and repeat it fifty times, or give the whole passage with the thought entirely upon what he is rendering rather than upon any of its processes.

In the light of these principles all exercises may fall under one of the following divisions:

First. Instinctive uses of the voice such as the shouts or laughter. Some Italian has said that Americans cannot have good voices because they are not allowed to cry when children. The first uses of the voice in childhood are more important than are usually realized.

Second. Technical actions. By studying the involuntary action, cries, exclamations, laughter, or calls, men can find the fundamental principle involved or the reason why one action is helpful to the voice and another injurious. He can apply a simple one emphasizing this fundamental principle that will stimulate normal conditions and eliminate the abnormal. All technical exercises are accentuations of natural, elemental actions in accordance with some fundamental principle.

Third. Expedients. Such elemental actions must be carefully performed before they become true technical exercises. To secure correctness in such an action, that is to establish such a performance of a given function as would emphasize or establish some condition in accordance with the fundamental principle, often requires great care on the part of the teacher. In difficult cases temporary expedients are required to get even correctness in the performance of some action whose normal operation is lost.

For example some speakers acquire the habit of labored breathing with a movement of their shoulders. This has become so deeply seated that in order to get true action of the diaphragm and to perform the exercise of centrality in breathing a teacher will have to lay a student upon his back or place him in a chair with the hands extended downward, grasping a post, to compel the shoulders to be still. This forces the diaphragm to move. Since its action is natural a little practice will correct the perversion and stimulate the parts to perform normally their intended function.

Such actions may be regarded as of little importance, but by such means a sore throat may be corrected and normal conditions restored. Though these are temporary and must be followed by a normal form of exercise, it could not be performed accurately without their existence.

Fourth. Specific expressive action; or definite manifestation of specific ideas, situations, contrasts; or the accentuation of some specific expressive action.

This differs from a technical exercise in that it implies the stimulation of the effect by the emphasis of the cause. A mere technical exercise may become mechanical, but such a psychological exercise of some specific surprise, exclamation, contrast, transmission or other mental or emotional action will produce practically the same effect or make a definite application of the technical exercise. The two together are more effective, the one securing more normal physical action, the other stimulating the mental cause.

Fifth. Applications to vocal expression. The climax of all exercises for the development of the voice must be the use of it in interpreting literature and in expressing all phases of experience from the lowest to the highest.

Exercising the voice must always accompany the direct exercise of thought, imagination, and feeling. Vocal education must be associated with a study and realization of the embodiments of human experience, poetry, and literature in general.

Vocal training demands, however, a specific application of a specific kind of passage from literature which will meet some peculiar need. For example, one with weakness in his breathing may be given some joyous lyric, the acting of some hearty character, or some passage full of great excitement or exultation. One with a cold, hard voice should be assigned the vocal interpretation of some passage full of tenderness and love, admiration of nature, love of home, or some passage with deep feeling.

All of these complement each other; they are all necessary; no one is adequate without the other. Any true science of training must recognize technical exercises. These must be specific and definite, embodying fundamental action so as to establish elemental principles. The use of fundamental actions must be applied not only to physical but also to mental action. We must emphasize the primary mental actions in such a way as to establish right responsiveness of the vocal action. Again, all expression must emphasize the highest functions of the voice in the expression of the fullest experience of the race.

Observe that the same action may at times be used as a study, a problem, an exercise, or an application, according to the needs of accentuating practice, and occasionally even as a technical exercise. That is to say, the same mental action in some exclamation may be first made a study as to what we would do when giving it naturally; secondly, we may accentuate the mental action and the responses which we have found; then it is a problem. In the third place, we can accentuate more definitely the technical actions, and thus it becomes an exercise. Last of all, we can read it naturally and in connection with the rest of the poem, and this forms an application.

The best exercises are always of this character. Whenever it is possible the student should be led along this path as the most normal and natural one.

It must be noted that each successive individual impression, when properly realized, causes a continuous rhythmic sequence of these co-ordinate responses.

Exercise 13. Co-ordination of Mind, Body, and Voice—III.

Observe how the following short passage may be used in all five ways. We can first observe how the companions of Marmion would be excited by the discovery, imagining the situation and observing the effects on our own voice and body. Secondly, we can take this word "Hark!" and observe that the tongue relaxes and the mouth opens at the same time that the breath is properly inhaled. Repeat it over and over with the mind upon the right technical response. In the third place, we might find someone unable to breathe in the middle of the body, and we might use this sudden "Hark!" to get him to realize that he does not, in response to the mind, inhale by the action of his diaphragm. Fourthly we might read the exclamation and the two lines to emphasize the genuineness of the discovery and its effect upon both body and voice. Lastly, the whole passage might be rendered with the proper relation of the expression of this and all other parts, and of all these to each other, noting that the results of the study, the exercise, the expedient, or the accentuation are applied and realized in the expression of the whole, and not made a mere isolated or local action or one calculated to induce a lack of harmony.

"Hark! hark! my lord, an English drum!
And see ascending squadrons come."
"Marmion" Scott.

The thresher with his flail,
  The shepherd with his crook,
The milkmaid with her pail,
  The reaper with his hook —
With pipe and tabor hither roam
All ye who love our Harvest-home.
  Hurrah for the English yoeman! . . .
  Hurrah! he yields to no man! . . .
From "Harvest-Home Song" John Davidson.

This discussion of the elements that go to make up any exercise is especially important as an aid in practice. Training can never accomplish results without having a specific aim, a definite recognition of the parts to be accentuated, and the way in which this is to be done. Not only may an exercise be used in these four ways, but true training demands practice in all, and the careful discrimination of these different kinds. When working upon a technical exercise the result must receive careful and exact attention; and when working upon the accentuation of a cause the more definitely the mind is focussed upon one word, phrase, or line, the better. On the contrary, when the aim is to interpret a passage the mind must take for granted the attuning of the organism and getting the attention fixed upon the ideas and the real situation. Accordingly, this discrimination is of great assistance in training by enabling the teacher to shift his point of view according to the needs of each case, and to be able to accentuate any one of the elements.

Of course, the aim must always be interpretation, and this must be kept in mind; but when it fails, as it will in practically every instance, he must then go back to the causes in the thinking and feeling, or in the perversion or lack of development in the organism, or the lack of co-ordination of response, and restore everything to normal conditions.

Both analysis and synthesis are needed. The stimulation of the spontaneous, involuntary responses to thinking and feeling are always required as well as specific work upon a single muscle or the focussing of attention upon a single idea.

III

RESPIRATORY AND PHARYNGEAL CO-ORDINATIONS

VI. THE MOTIVE POWER OF THE VOICE

In order to improve the voice it is necessary to know something of the general function of the organism concerned in its production, the primary actions of the mind and their relations to the voice, as well as something of the general nature of tone or sound and the elements in it which can be improved.

I. PRIMARY PARTS OF THE VOCAL MECHANISM.

If we examine a musical instrument we find three necessary parts performing three distinct functions. For example, in a piano the motive power is applied through the keys. The length and tension of the strings give the primary vibrations and the variations of pitch which, in popular language, may be called the "tune." The sounding board, and in fact, the whole instrument, furnishes the secondary vibrations which distinguish a piano from all other instruments. This may be called the "tone." In the violin the initiatory force is given by the bow; the length and tension of the strings produce the "tune," while all parts vibrate in the "tone." In the flute the motive power is applied at the mouth. The change in the length of the tube by the fingers over the openings furnishes the "tune," while the body of the instrument, whether of metal or of wood, its shape, and structure, furnishes the "tone." So, in all complete musical instruments, these three parts may be distinguished. In the drum the pitch is fixed. There are no modulations of pitch, tune or melody. The motive power and the regulation of its rhythm are applied by the drum-stick, and as in other cases, the entire instrument gives the tone.

In the human voice the same three functions and the division of the parts pertaining to them are found. The parts controlling the breath, the diaphragm, the thorax, and all the inspiratory and expiratory muscles furnish the motive power. The cartilages and muscles of the larynx, by changing the length and tension of the vocal bands, produce variations of pitch, such as inflexions, the vocal form, or "tune." The pharynx, the tone passage and the chambers connected with it and indeed the whole body, with every change of the muscles caused by the diffusion of emotion, vibrate sympathetically producing the secondary vibrations of the tone.

To increase the efficiency of any musical instrument it is necessary to improve these three functions. The parts furnishing the motive power, those supplying the tune, and those producing the tone must be specifically developed and their functions separated more definitely, while at the same time all these are brought into greater harmony.

The human voice is no exception. To improve it every part performing any function in voice production must be understood as far as possible, and the method of performing its office developed and harmonized with the other functions. More specifically, we must develop a normal, easy, and yet sympathetic control over the breath; improve the vibratory power of the vocal bands by removing unnecessary activities and interferences and localize their function. We must secure greater openness of the tone passage by removing constrictions from all its parts and developing its harmonious relationship to the other primary parts and its sympathetic oneness with the whole body. In training the voice the motive power should be developed first, because this provides the material of the tone as well as gives force to initiate the vibration. It also furnishes the primary agent for the sympathetic vibrations. But most important of all, if the first hypothesis suggested be correct, the right action of other parts of the vocal mechanism is secured by co-ordination with the right action of breathing. The correct use of the breath is, in fact, the centre of the whole vocal process. Other things being equal, the more breath we have the stronger the voice, and the better our control over the breathing, the more sympathetic its relation with all parts of the body and to the primary powers of the mind — the more responsive and expressive is the voice.

II. BREATHING AND THE GENERIC CO-ORDINATION.

Of all the functions of the body, breathing is the most central and the most directly related to vital conditions. Health and strength depend primarily upon normal breathing. Life begins and ends with breath. All writers on long life give as an invariable sign of longevity the character of the breathing. Its right use is the best physical agent for avoiding disease. Anyone can prove this by thorough and systematic breathing, accentuating it at the beginning of a "cold." The best means of controlling moods, discouragement, or any negative emotional condition, is through breathing. All control of emotion and feeling in man is directly associated with the control of his breath.

It is no cause for wonder, therefore, that the production of tone, which is a primary basis not only of vocal expression but also of spoken language, should centre in breathing.

The faults associated with incorrect use of breath should be the first to receive attention in vocal training. Constrictions must be removed from the diaphragm and respiratory muscles and their normal functions established before the condition of the voice and the character of its perversions can really be determined. When such constrictions are removed from the breathing they frequently disappear from the tone. Control of the breath will especially help those whose weakness of voice or of health is directly associated with the respiratory mechanism and actions, and also those suffering from misuse of the voice.

These statements, however, are general. A knowledge of the triple function of the vocal mechanism hardly gives a key to the work of vocal training.

If we consider the action of any musical instrument we find there is one part which acts, while the others are acted upon. We do not play the violin upon the bow, but the bow upon the violin.

Similarly we find that the active impulse in making tone comes from the breath, while the vocal bands are acted upon and the whole tone passage is passive and open. We discover later that the pharynx and the larynx are passive in a different sense, and that there are two co-ordinations, one in each, both connected with the breathing. But in general, the other two functions may be brought in direct contrast to the control of breath. The breath is active; they are acted upon.

Now, if we compare these facts with our fundamental principle, we learn that the principle is perfectly consistent with them as regards the action of any musical instrument. At the instant of receiving any great surprise, or of making an exclamation, there is a co-ordination of activity in the middle of the body and passivity at the throat; that is to say, the vocal mechanism is attuned or prepared for its work. In proportion to the degree of excitement or earnestness do we find increase in the activity of the diaphragm and passivity of the throat in exact correspondence.

Further, we perceive in studying carefully the actions of the throat that it can be opened only through the action of the breathing, and this, too, when acted upon by imagination or by the reception of a vivid impression.

In order to establish the condition which we have found to be fundamental, we must direct our attention to the part over which active control must first be secured. The other conditions of voice are more or less resultant co-ordinations of the correct management of the breath. The human will must command the breath as the motive power at the initiation of the tone. Though the voice is not a mechanical instrument, it must be attuned or trained before expression can be adequate. This attunement is not a separate matter, but a part of the direct response of the vocal mechanism and the whole body to thought and feeling.

The right management of the breath, therefore, furnishes us with a clew as to the place to begin the work of voice development. Every condition of voice starts with sympathetic retention of the breath. The lungs provide the material for tone and the material and its control are first necessary.

Here also do we find the right action of the motive centres causing all other parts to respond properly. It seems the key to all the mysterious co-ordinations concerned in tone production.

III. HOW BREATHING FURNISHES THE MOTIVE POWER.

One of the greatest difficulties in vocal training, and even in understanding how to improve the voice, is the action of the breath in producing tone.

One of the first mistakes the student makes is in respect to the proper nature and action of the motive power of his voice.

He nearly always endeavors to produce tone by a direct expulsive action of his expiratory muscles. I once heard a physician — who was in fact, the leader of physical training in his day — laugh at those who talked about the diaphragm, and declare, "I breathe with my abdominal muscles." It was astonishing to me that he did not know that these are expiratory muscles. How he could get breath by them seems a profound mystery. To bring in the action of these abdominal muscles secures the motor action with too little breath, and this constricts the throat, makes the tone mechanical, and destroys the right co-ordinate relations between the tone passage and the diaphragm, or between the latter and the vocal bands.

The motive power of the voice results from a number of complex but sympathetic and perfectly natural causes.

The lungs are composed of about half a million cells. When full of air these cells, composed as they are of elastic tissue without any muscular fibers, will tend to throw the breath out, and the greater the amount of air in the lungs the greater will be this tendency. This constitutes the primary element in the motive power of the voice. It is secured indirectly; that is, by taking air into the lungs; not by forcing breath out by the expiratory, but by sustaining the tension of the inspiratory, muscles.

In addition to the sympathetic elasticity of the lung cells, there is at least one other activity which forcibly expels the breath. When the lungs are full of air the vital organs are pressed downward and outward, and these will spontaneously return to their normal place. Thus, the resilience of the vital organs, and of the abdominal and thoracic walls, all tend to expel the breath.

How is this breath regulated in the act of making tone? By the muscles that cause the breath to be taken.

Hence, the great importance of studying the inspiratory muscles. The chief of these is the diaphragm, so important an organ that someone has said, "If the diaphragm is right all the other respiratory muscles will be right." Here lies the chief difficulty in the control of breath; in taking it the diaphragm becomes active. How can this muscle regulate outgoing breath?

Muscles have three kinds of contraction: concentric or the ordinary contraction, in which the muscle shortens itself and directly produces the movement or action; static contraction, in which the muscle stays its tension at a certain point; eccentric contraction, in which the muscle gradually lengthens or gives up its tension. The first is easiest to control; to secure command over the second and third requires more patience and care.

Now it can be seen at once that the motive power of the voice is regulated and controlled by the eccentric action of the diaphragm. To gain control of this, therefore, not only must we strengthen the inspiratory muscles and the power to take a great deal of air into the lungs, but there must be careful development of retental force. In other words, we must be able to give up breath gradually and stay the tension of the diaphragm. That is we must get control of the eccentric contraction of the diaphragm and of the associated inspiratory muscles.

Here then we have a statement of the real character of the motive power of the voice, and we can see a reason for the difficulty in controlling it. This, however, is not so great as may be imagined; after a thorough understanding of what is needed the student will be enabled to master it with comparative ease. The universal tendency to talk about breathing "with the abdominal muscles," entirely overlooks the fundamental character of the control of breath. The abdominal muscles are expiratory, and when brought into activity in opposition to the inspiratory muscles they increase what Dr. Merkel calls the "vocal struggle." But in proportion to the activity of the expiratory muscles the tendency to send out breath will be increased. Now, the less the air in the lungs the less will be the outward pressure of the breath and the more necessary will it be to use the expiratory muscles to force it out to make tone. The less the breath in the lungs, the less will this motive power come from its normal source, that is, from the elasticity of the lung cells and the resiliency of the abdominal walls and vital organs. When the lungs are almost empty there is, of course, no need of activity in the inspiratory muscles to retain the breath. On the contrary, in proportion to the amount of air in the lungs will the action of the inspiratory muscles be necessary to retain the breath while that of the expiratory muscles will be unnecessary to secure the expiratory action to produce tone. It may be stated as a law that in proportion to the transcendence of the activity of the diaphragm and the inspiratory over the expiratory muscles will there be a more normal, easy, and resonant tone. At any rate, attention must be directed not to the expiratory but to the inspiratory action in the study and development of the motive power of the voice.

On taking the first step toward developing normal actions of breathing it is important to distinguish the easiest method of taking the greatest amount of air and of avoiding all labored and unnecessary effort. Breathing in sleep is largely involuntary, and even in waking hours we rarely breathe by direct act of will. Whenever conscious attention and voluntary effort are directed to the increased and more adequate control of breathing there arises an almost universal tendency to interfere with the natural process. Too much effort is usually introduced, and in nearly every case the labor is expiratory or expulsive, and does not mean the taking in of more breath and its easy and sympathetic retention.

Mr. Shakespeare, with whom I once had the honor of studying, advised: "Never give breathing lessons; give rather boxing lessons." With all respect to this eminent authority, difficult and dangerous as the task of improving breathing is, the teacher who neglects it will make slow progress and often fail to correct the most glaring and fundamental faults.

VII. EDUCATION OF BREATHING

Breathing as the motive power of the voice would be an easy matter if men used their breath normally. But of all functions close to man's life, this is apt to be the most perverted and abnormal.

Therefore, before beginning the development of the right retention and management of the breath in tone production, it is necessary first to study the action of breathing as a whole, and note whether it is easy and normal, or labored and abnormal. What is the simplest method of taking a great amount of air? Is there a correct and an incorrect method of breathing in life and in the use of the voice?

Nature has many methods of breathing. If a man be shot or wounded on one side, nature substitutes other parts for the one that is weakened and breathing is centred more on the other side. If the diaphragm be constricted, the breath is concentrated more in the upper part of the chest and develops a certain flexibility even in the bones, but all this implies accident or interference with nature. Nature may accommodate vital functions to abnormal conditions yet by the normal method, and upon the intended centre of breathing must all power be developed.

In the use of the voice man may breathe in many ways from perverted habit; he may do this by lifting his shoulders, at the side by movement of his ribs, or by forced action of the abdominal muscles. None of these, however, may be natural, but the result of habit or of some kind of interference.

I. THE NORMAL CENTRE OF BREATHING.

What is the natural or normal method of breathing? In what part of the body should the activity centre?

To decide this requires careful observation since it is of great importance to begin at the centre of the process of tone production.

One answer may be found in attention to the sleep of as normal and healthy a person as possible. Observe, for example, a child; the whole torso is flexible, and breathing centres in the middle of the body. It is not located here mechanically; there is simply a predomiance of activity at this point.

Of course, breathing in sleep is involuntary and has a different rhythm from its action in making tone; but it is in unconscious and involuntary actions that the primary intentions of nature are found. In a normal person breathing centres in involuntary uses of the breath; and there it must centre in all tone production.

By introducing labor the student can force his breath seemingly to the abdomen, lift his shoulders and collar bone, or breathe at the side; but all these require effort. The central action is the easiest method and the most natural. Observe the physical effort of a man in lifting. There is a focussing of the breath in the middle of the body. It is the diaphragm which is the central agent for the control of feeling. Anyone struggling for self-command in pain will show action in the middle of the body. When one gets control of his diaphragm he has self-command. The centre of the body, accordingly, is the centre of command over feeling and energy.

Another observation should be the involuntary vocal actions such as sighing and sobbing, and especially laughing. All normal, hearty laughter centres its activity in the middle of the body, although the agitation may be seemingly all through the torso. After some humorous performance or lecture or after a long period of laughter a man feels weary in the middle of the body.

It should be observed that the lungs are broadest at the base, also that the thorax is a bony box in which the lungs are encased. Note that the lower ribs are " floating," or only indirectly attached to the breast bone, and that the cartilage which attaches the other ribs to the sternum is much longer in the case of the lower ribs than of the upper ones. All this shows that the thorax is meant to be flexible at the base.

Observe further that there is a heavy bone at the summit of the thorax, and that there are no bones at the base of the lungs.

Notice the peculiar location and character of the diaphragm which divides the torso by a kind of double arch; remember also that it is a muscle whose fibres run in all directions. Observe the effect of the contraction of the diaphragm upon the stomach and the relation of its action to the peristaltic action of the digestive function. Persons suffering much from indigestion are likely to have some limitation in breathing, and especially in the free and vigorous movement of the diaphragm.

What unprejudiced eye can look at all these facts, at the structure of man's respiratory organs in their completeness, and not see at once nature's intention?

The student should be cautioned against choosing for study persons who have been abnormally constricted; as for example, women who have practiced tight lacing in order to make their bodies correspond to some false ideal of the human form. The lower ribs may be brought together so closely as to change completely the shape of the thorax. The lower floating ribs may have been brought so near together that free, central respiratory action becomes impossible. Even the vital organs are out of their normal place. Hence, such persons are compelled to develop breathing at the summit of the chest, and this part may become quite flexible and the breathing show a continual heaving upward and downward of the collar bone and the upper part of the thorax. Observation of such people, accordingly, can furnish no test of normal action. Even when the constrictions of the abnormal, health-destroying cages around the part meant to be the centre of breathing are removed, nature has been so perverted by habit that she is unable to restore her normal method. If we observe carefully those who use the voice easily and well, in almost every instance vocal conditions or the possibilities of the voice are indicated by this normal action of breathing.

The main activity in all breathing should be not at one particular spot but in the middle of the body. The predominant action should correspond with the centre of gravity, and in all the work of developing the voice this normal condition should be studied.

As a preliminary step in the education of breathing, every student should lie flat upon his back on a couch without interference and breathe easily, naturally, and continuously for some time, and as lazily as in sleep, being careful not to introduce any will. He must discover the natural tendencies of his own breathing. Breathing in sleep is involuntary, and the voluntary element introduced in breathing for voice must be carefully co-ordinated with the involuntary life breathing.

Exercise 14.
Centrality of Breathing — I.

Now let him take a little more breath than usual, but be careful to take it at the same spot, hold it an instant, and then give it up, and repeat many times. He should carefully distinguish the entrance and exit of his will from his life breathing.

The student will observe that a healthy man in sleep, or lying upon the back, breathes naturally in the middle of the body, that is, the predominant activity is all through the centre of the torso. In introducing his will he should be careful to accentuate the centrality of all actions, though not localizing it at a definite point, nor emphasizing some action not found in sleep.

As a true exercise must be the accentuation of a fundamental action, and since breathing in the middle of the body is a primary and natural process, we can easily accentuate this central action in such a way as to localize and develop the functioning of the parts.

Exercise 15. Centrality of Breathing — II.

Sit erect, making sure that the spine is vertical, that the hips are well back in the chair, and the chest slightly and harmoniously expanded, but with every part of the body, including the feet and lower limbs, relaxed. In this position, inhale air, feeling it arrive in the middle of the body; hold it for an instant, and then allow it to pass outward. The action must first of all be easy and there should be no constriction at any point. The first exercise is merely to feel the sense of the arrival and departure of breath. This must be followed by an accentuation of the action, that is, of the amount of breath, but the expulsion must be gradual and easy, and not due to the introduction of new muscular actions.

Even this simple exercise will not be fully accomplished by some whose normal condition has been perverted by dress, or by weakness of the muscles in the centre of the body.

The same exercise may be taken by the student lying on his back in as passive a condition as possible. In this position he can note the arrival and departure of his breath without any interference. The breathing may be as spontaneous and as involuntary as it is in sleep; but the moment he increases the inspiratory action, takes in a little more air than his average, or holds it a little longer than usual, he has introduced his will, and the free, natural movement has been transformed into a technical exercise. In proportion as he can accentuate this additional inspiratory action in breathing without introducing any constriction, or making any change in the parts used, he can supplement nature without interfering with her processes.

Exercise 16. Freedom of Motor Action.

In some way the student must be led to feel the action of his own diaphragm. The teacher may occasionally adopt such expedients as having him try to blow out a candle at a distance, utter a passive, lazy whisper, or a sigh, or observe his laughter in order to show action in the middle of the body, and to develop consciousness of this. Or again, the fingers may be placed on the middle of the body, and breath drawn in causing the body to press against them. Then by exhalation the body is allowed to move away from them. This experiment, however, is not one calling for frequent repetition.

These exercises help to stimulate the nerves of the diaphragm and awaken consciousness of its right action.

Where there is great constriction of the diaphragm or where only one part of it is used, as is usually the case, the student should, after taking a deep and sympathetic breath, give it out in a whispered "Yes" or "No." Let the whisper be passive. It is to develop not only a consciousness of the outgoing breath and the fact that it will go out of itself, but also to develop a freedom of the diaphragm. Be sure that there is a general relaxation.

Exercises in whispering are fatiguing, especially to those who have a weakness in the respiratory mechanism, but when practiced carefully, with a period of rest after every few moments, may be really helpful.

Still another exercise should be the careful practice of a tone, preferably a simple rising inflexion. Use some open, free vowel, such as "a," which is the mother vowel, and the first in all European languages. Allow this to pass out with the greatest freedom. Do not make the inflexion loud, but easy, and open. Be generous with the expenditure of breath, allow the breath to do almost what it pleases, and there will still be a sympathetic action or retention of it in the middle of the body which causes the tone passage to be open and the tone to pass out freely. This activity should be slight at first, and the teacher should be sure that the student does not constrict the diaphragm or force out the breath to make tone from the shoulders or the summit of the chest. As far as possible, the motor power should be the result of the sympathetic and elastic action of the lung cells.

Exercise 17. Initiation of Co-ordination — I.

The part to note is that the tone comes from the middle of the body, and that the breath is released there. Let the sense of retention be slight, gradually increasing with the holding of a greater amount of breath.

Various problems for centralizing of breath may be adopted, such as exclamations, commands, throwing tone to a distance, hearty and joyous laughter. The teacher must adopt problems of various kinds to get the student to recognize the ease of his tone production when breathing is properly centred. The greatest difficulty is encountered in conditions of labor. Students try to make this breathing at the middle of the body instead of complying with tone conditions and allowing the breath to find its own centre. By mere will it is impossible for him properly to centralize his breath. He must have recourse to laughter, joy, and heartiness to establish ease in making tone. He may observe the parts and see that they act properly, but by the introduction of his own will he will introduce a constriction which will be a fault and at once affect the throat. What ever the state of cramp, or ease, or freedom in the diaphragm, some corresponding condition will always be found in the tone passage.

II. RETENTAL ACTION OF BREATHING IN VOICE PRODUCTION.

Exercise 18. Retention of Breath — I.

Since the tendency to expel the breath when the lungs are full is so strong the most important action in controlling it after establishing a natural centre consists in opposing this expiratory action by sympathetic retention of the air in the lungs. This must not be done by shutting the vocal bands, but by sustaining the harmonious activity of all the inspiratory muscles, and especially of the whole diaphragm, for several seconds. Inhale slowly and retain a full breath at first for only five seconds, and then for ten, gradually increasing the time until it can be retained for fifteen or twenty seconds. Then allow the breath to pass steadily and easily outward.

Observe that the initiatory action in the inhalation is in the centre of the body, and that this activity is continuous from first to last. It is vitally connected in man with the control of his feelings. Hence, there is a natural basis upon which vocal training can be built.

Exercise 19. Retention of Breath — II.

An emotional exercise can be arranged for the central retention and control of the breath, such as laughter, heartiness, or any deep emotional passage. Sometimes princely dignity and resolution, controlling the feelings, will tend also to bring the control of breath into the centre of the body. In Catherine's intense feeling and dignified control observe the effect upon the breath. Note also the effect on breathing of some sympathetic expansive emotion, such as is found in the second passage, from Browning:

Queen Catherine. Pray you keep your way;
When you are called, return. Now the Lord help me;
They vex me past my patience! Pray you pass on.
From "Henry VIII" **Shakespeare.**

HOME THOUGHTS FROM ABROAD

Oh, to be in England now that April 's there,
And whoever wakes in England sees, some morning, unaware,
That the lowest boughs and the brushwood sheaf
Round the elm-tree bole are in tiny leaf,
While the chaffinch sings on the orchard bough
In England — now!
And after April, when May follows
And the white-throat builds, and all the swallows!
Hark, where my blossomed pear-tree in the hedge
Leans to the field and scatters on the clover
Blossoms and dewdrops — at the bent spray's edge —
That 's the wise thrush: he sings each song twice over
Lest you should think he never could recapture
The first fine careless rapture!
And, tho' the fields look rough with hoary dew,
All will be gay when noontide wakes anew
The buttercups, the little children's dower
— Far brighter than this gaudy melon-flower!
Robert Browning.

The opposition between the tendency of the breath to go out and the activity of the inspiratory muscles is more or less increased by activity in the expiratory muscles, but the action of the latter will be less needed just in proportion to the amount of breath in the lungs. Accordingly, to have full control over the voice one must have power to retain a great deal of breath in the lungs while making tone.

At first the student can make tone easily only when he has about the normal average of breath in his lungs, but one of the most important of all steps is gradually to increase the amount of breath which can be retained in the lungs while making an easy tone.

The student should feel his breath arrive and depart in the middle of the body. Then it may come and go as a passive whisper. This develops something of the flexibility, harmonious action and freedom of the respiratory muscles.

Exercise 20. Harmony of Respiratory Actions.

The next step is to feel the breath depart in a simple tone. The best is perhaps a rising inflexion on an open vowel, such as "ah," or "o." The student should be sure to have more breath in the lungs than usual and increase this with each repetition, taking care, as the breath becomes more actively retained at the initiation of the tone, not to cramp or constrict but to allow the tone to make itself as easily as possible.

Exercise 21. Initiation of Co-ordination —II.

> O, music! Thou who bringest the receding waves of eternity nearer to the weary heart of man as he stands upon the shore and longs to cross over! Art thou the evening breeze of this life, or the morning air of the other one?
>
> Jean Paul Friedrich Richter.

This statement is one of the most fundamental in all vocal training. How can this retental action be developed?

Its development must proceed slowly and gradually, and parallel every other step. But the first exercise toward it is to have the breath normally centred, for it is useless and injurious to develop retental action so long as the student may have an abnormal method of breathing. If he breathes, for example, at the top of his lungs, he must at first exercise with the utmost ease so as to establish right action in the middle of the body. After this there may succeed simple retention of breath.

The amount of time during which the breath is retained is not the important point, for there must be no retention after a sense of discomfort is felt. Some persons can retain the breath much longer than others.

Many people contend that their voices have been improved by no other exercise than this simple inhaling of the breath perseveringly practiced.

There are many reasons for believing this. As a rule, such improvement will be more marked in those who have little control of the breath, but as no one has adequate power of staying the tension of the inspiratory muscles everyone can receive some benefit. When the lungs are full of air all the cells are expanded and become more elastic. Hence, the sympathetic vibration of the chest with the vocal bands is dependent upon the amount of breath retained in the lungs.

Some students will be troubled by the small amount of breath that can be taken above the average; others by the short time it can be retained, but in either case regular practice, increasing gradually both the amount and the time of retention, will bring marked improvement.

Exercise 22. Emotional Control of Breath — I.

Laughter is an important exercise in developing sympathetic retention of the breath. The student must be sure to accentuate the conditions of this, not only its genuineness and heartiness but the fact that a genuine laugh easily reserves a great deal of breath. Exercises in laughter should be followed by the reading of lines with the conditions of laughter, — that is, sentences and phrases should be given with all such conditions except the spasmodic action of the diaphragm.

Ho, ho! ha, ha! the merry fire!

Still another matter is of importance, namely, that there should not at first be an exercise of too much loudness, as this brings in unnecessary action of the expiratory muscles, and leads to a certain forcing. There should be a soft tone with a great amount of breath in the lungs, and then the easy and natural use of the voice, only with greater accentuation of the reserved breath. These will accomplish speedy results and also improve other vocal conditions.

Exercise 23. Emotional Control of Breath — II.

The practice of the exclamation is also helpful. Observe that in pain we inhale a great amount of breath and hold it in reserve as a means of controlling the condition. Those who can control their feelings in pain have frequently great power of packing the lungs with air. The vocal explosion, or escape of breath, indicates this retention.

GOOD-NIGHT

Good-night. Good-night. Ah, good the night
That wraps thee in its silver light.
Good-night. No night is good for me
That does not hold a thought of thee.
Good-night.

Good-night. Be every night as sweet
As that which made our love complete,
Till that last night when death shall be
One brief " Good-night," for thee and me.
Good-night.

Dr. Weir Mitchell.

Exclamations, exultant words, and phrases or commands should be practiced with every successive step, the student accentuating the new conditions or the primary element in the new step in each case. It is usually best to review the same exercise or the same exclamations and extracts emphasizing the newer condition and additional to the former one.

Exercise 24. Endurance and Control of Breath.

In Dr. Franklin's humorous dialogue with the gout he records his own groans and the lecture given him by Madam Gout regarding his habits of eating and his lack of exercise. The effect of these groans is helpful, and if the student will interpret them and indicate in a humorous way these explosions, assistance may be gained in securing control over the breath.

FRANKLIN AND THE GOUT

Midnight, October 22, 1780.

Franklin. Eh! oh! eh! What have I done to merit these cruel sufferings?

Gout. Many things: you have ate and drank too freely, and too much indulged those legs of yours in their indolence.

Franklin. Who is it that accuses me?

Gout. It is I, even I, the Gout.

Franklin. What! my enemy in person?

Gout. No, not your enemy.

Franklin. I repeat it: my enemy; for you would not only torment my body to death, but ruin my good name; you reproach me as a glutton and a tippler; now all the world, that knows me, will allow that I am neither the one nor the other.

Gout. The world may think as it pleases; it is always very complaisant to itself, and sometimes to its friends; but I very well know that the quantity of meat and drink proper for a man who takes a reasonable degree of exercise, would be too much for another who never takes any.

Franklin. I take — eh! oh! — as much exercise — eh! — as I can, Madam Gout. You know my sedentary state, and on that account, it would seem, Madam Gout, as if you might spare me a little, seeing it is not altogether my own fault.

Gout. Not a jot; your apology avails nothing. You ought to walk or ride; . . . but these are rejected for this abominable game of chess. Fie, then, Mr. Franklin! But, amidst my instructions, I had almost forgot to administer my wholesome corrections; so take that twinge, — and that!

Franklin. Oh! eh! oh! ohhh! As much instruction as you please, Madam Gout, and as many reproaches; but pray, madam, a truce with your corrections!

Gout. No, sir, no: I will not abate a particle of what is so much for your good, — therefore —

Franklin. Oh! ehhh! — It is not fair to say I take no exercise, when I do very often, going out to dine, and returning in my carriage.

Gout. That, of all imaginable exercises, is the most slight and insignificant, if you allude to the motion of a carriage suspended on springs.

Franklin. Your reasonings grow very tiresome.

Gout. I stand corrected. I will be silent and continue my office; take that, and that.

Franklin. Oh! Oh! Talk on, I pray you!

Gout. No, no; I have a good number of twinges for you to-night, and you may be sure of some more to-morrow.

Franklin. What! with such a fever? I shall go distracted. Oh! Eh! Can no one bear it for me? How can you so cruelly sport with my torments?

Gout. Sport! I am very serious. I have here a list of offences against your own health distinctly written, and can justify every stroke inflicted on you.

From Franklin's "Autobiography"

It must be remembered, that this retention is due to an imagination of pain. There will be danger of physical or abnormal effort; the ease and joyous character of the general thought must not be lost. The point is to keep the throat as open and the whole tone passage as passive as possible while retaining much breath.

Exercise 25. Heartiness and Control of Breath—III.

Possibly a still better exercise for centrality and ease in retention of the breath is to take some passage full of great heartiness, such as Mr. Trowbridge's "Farmer John Goes to Town." The students should accentuate the heartiness of the character. This will cause sympathetic expansion through the whole body, and especially the retention of breath.

Ah a happy man is Farmer John,—
  O, a rich and happy man is he!
He sees the peas and pumpkins growing,
The corn in tassle, the buckwheat blowing,
  And fruit on vine and tree;
The large, kind oxen look their thanks
As he rubs their foreheads and strokes their flanks;
The doves light round him, and strut, and coo;
Says Farmer John, "I'll take you too,—
      And you, old Bay,
      And you, old Gray,
Next time I travel so far away!"

"Farmer John Goes to Town" **J. T. Trowbridge.**

It is said that women have more flexible chests than men, and that their breathing is more easily centred in the chest, but in the study of normal conditions, so far as tone production is concerned, we find little difference.

III. LIFE BREATHING AND VOICE BREATHING.

It will be seen at once that the lungs must discharge two functions. We must breathe for the support of life and also for production of tone. Some of the greatest troubles in misuse of the voice arise from failure properly to harmonize these two functions.

Life breathing is continuous. Even though a man may be holding his breath the mechanical process is going on. The oxygen of the air held in his lungs is acting upon the blood circulating through the pulmonic system. It is a wonderful fact that man lives chiefly on air. He can get along with less food and water but he must have a large supply of air. It is said by physiologists that man breathes from eighteen to twenty times a minute. How necessary then is pure air; how important that the lungs be normally exercised. All true physical gymnastics should aim to establish normal conditions of breathing. Other things being equal, an exercise that does not properly extend the chest and give greater freedom and sympathetic expansion to the lungs is injurious to health.

We can see, accordingly, that any use of the voice which interferes with life breathing would be a serious menace to health. Is there such a danger? It is, in fact, one of the first difficulties that the teacher meets. If we study the action of breathing among speakers we frequently find an interference between voice breathing and life breathing. Either the man does not take in a sufficient amount of air, or does not breathe frequently enough. I have found the same interference also on the part of singers. Actors are doubtless more frequently liable than others to this fault.

The chief cause of this interference is mental, and it is, in my opinion, one of the best arguments for the psychic character of vocal training. At any rate, it has been the only method by which I could effectively secure a right co-ordination between life and voice breathing.

In our first principle we learn that with the reception of a vivid impression man takes breath. Further observation discloses that the rhythm of breathing for voice is dominated by the action of the mind. With the reception of every idea, if it is adequate and attention is definite, there is the taking of breath. Impression, therefore, causes the inspiration of air and expression is associated with the giving out of breath.

When persons think vaguely or abstractly, or merely repeat words mechanically or from memory, there is less effect of thinking upon breathing. The speaker will not only have less breath, and breathe less frequently, but his control of it will be less normal and rhythmic. Anyone can prove this by counting chairs for example in a large room. He will discover that he stops occasionally to breathe, but that he does this from necessity. The breathing has nothing to do with the mental action or even with the utterance of the successive notes.

Exercise 26. Co-ordination of Impression and Inspiration. — I.

Mechanical expression, accordingly, utterance of words for their own sake, mere repetition of these from memory, or any absence of genuine thinking and feeling or realization of successive impressions will interfere with breathing. On the contrary, if we take some passage with vivid successive impressions, and realize each one intensely in a natural and orderly sequence, the rhythm of breathing is stimulated; that is, the person will breathe more frequently, and will take breath with each impression.

Beloved of children, bards and Spring,
O birds, your perfect virtues bring,
Your song, your forms, your rhythmic flight,
Your manners for the heart's delight,

Nestle in hedge, or barn, or roof,
Here weave your chamber weather-proof,
Forgive our harms, and condescend
To man, as to a lubber friend,
And, generous, teach his awkward race
Courage and probity and grace!

"May-Day" Emerson.

Frequency of breathing, accordingly, or the natural action in breathing in response to thinking, may be developed by developing thinking and making the impressions more simple and individual. This will at once have its effect upon breathing.

It is necessary, however, in the production of tone, both for singing and speaking, to develop proper co-ordination between life and voice breathing. How can this be done?

If we shout to a distance, or utter the word "No!" or "Halt!" as a sharp command, we take an unusual amount of breath to support the word, and immediately after uttering it we release spontaneously the surplus of breath in the lungs. This is the return of the lungs from the conditions of voice breathing to that of life breathing. We call this the release of respiratory conditions. It is, of course, the release of the extra breath which is taken into the lungs for production of tone.

Exercise 27.
Release of Voice Conditions.

Now occasionally we find people that have no such surplus. Many may deny that we have more breath in the lungs in making tone than we have for life breathing, but such persons should be careful to observe the fact. In all normal production of tone voice breathing requires more breath than does life breathing. When this is not the case, then the former will necessarily interfere with the latter.

The amount of life breathing is regulated by conditions of vitality. When a man sits he breathes more than in lying down, when standing he breathes even more, in walking still more, and in running most of all. The amount of breath for voice is determined by the vividness of the impression, the intensity of the passion, the struggle to control feeling, or by some other psychic condition. Voice breathing is greater in amount. Its frequency is determined by the mind, by the method of thinking and the normal reception of individual impressions produced as a normal co-ordination; while ordinary or abstract thinking or exaggeration of an impression interferes with life breathing.

Both life and voice breathing should be natural and easy, and centred in the middle of the body, but normal life breathing is involuntary and usually unconscious. Voice breathing, on the contrary, is in part at least a voluntary activity, of which man is more conscious than of life breathing.

Render "No" from the following passage, strongly realizing Browning's conviction that immortality must be inferred from man's nature and the truthfulness of his Creator. Give also other exclamations with intensity, accentuation of the amount of breathing and of its fundamental conditions, but observe that the instant they are given there is a recoil of the organs to easy and normal life breathing.

> No, ah, no! for God above
> Is great to grant, as mighty to make,
> And creates the love to reward the love,
> I claim you still for my own love's sake!
>
> "Evelyn Hope" Browning.

Exercise 28. Recoil from Voice to Life Breathing.

In giving such an exercise students are likely to force out a surplus. This is altogether vicious. The release must be absolute. We can never recover by will. Life breathing must be involuntary and the return from voice to life breathing is the giving up of certain volitional actions.

The student should be rendered conscious of his release by making short inflexions, intense or thrown to a distance, and observing the easy and natural recoil of his diaphragm to life breathing.

In the act of speaking or reciting, when abnormal conditions are present, such as sore throats or nervousness, the teacher should observe carefully whether during pauses, — especially during the longer ones, — there is a proper release of the voice conditions.

VIII. FAULTS OF BREATHING

Modes of using the breath are almost innumerable. The most important have been discussed in connection with the special steps indicated for the understanding and especially for the development of a right control of breathing. A few, however, may need more adequate discussion.

There are numerous faults associated with life breathing. Many diseases and much pain would be avoided, and life often be greatly prolonged by some attention to the development of normal conditions and methods of breathing.

This book is hardly the place to discuss such faults and we must mention briefly those only which bear upon the use of the voice. In speaking, many of these may be traced to wrong methods of life breathing.

I. FAULTS OF RHYTHM.

All vital processes, such as breathing, must be rhythmic. On account of the semi-conscious character of this, however, and the responsiveness of voice breathing to thinking or feeling, of life breathing to habits, there is great danger of interfering with rhythm. The breathing of little children may become nervous and jerky from various causes, one of which is the development of timidity and lack of self-confidence through blame or from continual scolding in order to make them more conventional. Exposed to such nagging they become artificial and their breathing superficial, losing its deep, normal, and natural rhythm. The consequences of this are serious, and there ensue many imperfections not only of voice but of general health.

It is difficult to suggest remedies. Rhythmic plays that involve easy and natural running; games which develop greater courage and confidence; the acting of dialogues and various rhythmic movements of the body, especially when associated with harmonious expansion of the chest, are all helpful. Children must be sent out of doors, to the country, or to some play room, and be allowed to yell and shout to their heart's content.

The fault is not confined to children. Few people are truly rhythmic in breathing. All should take regular walks, holding the chest high, and breathing vigorously but with as much regularity and ease as possible. The student should breathe deeply, easily, and regularly, and allow the rhythm of his breathing to correspond as far as possible with that of his walking or running.

Exercise 29. Co-ordination of Impression and Inspiration — II.

Many speakers form a kind of labored, monotonous rhythm of breathing, if it can be called rhythmic. This is an injurious habit, and can be corrected by rendering of passages with different degrees of excitement, or by giving something slowly and intensely, making sure that the rhythm of thinking dominates that of breathing.

WHITE ROSES.

No sleep like hers, no rest,
  In all the earth to-night:
Upon her whiter breast
  Our roses lie so light.

She had no sins to lose,
  As some might say;
But calmly keeps her pale repose
  Till God's good day.

Ernest Rhys.

Superficial thinking causes one to breathe superficially and seldom; while deep, intense realization even with slow movement makes for deep, and even frequent breathing.

THE BALLAD OF THE ANGEL.

"Who is it knocking in the night,
That fain would enter in?"
"The ghost of Lost Delight am I,
The sin you would not sin,
Who comes to look in your two eyes
And see what might have been."

"Oh, long ago and long ago
I cast you forth," he said,
"For that your eyes were all too blue,
Your laughing mouth too red,
And my torn soul was tangled in
The tresses of your head."

"Now mind you with what bitter words
You cast me forth from you?"
"I bade you back to that fair hell
From whence your breath you drew,
And with great blows I broke my heart
Lest it might follow, too.

"Yea, from the grasp of your white hands
I freed my hands that day,
And have I not climbed near to God
As these His henchmen may?"
"Ah, man, ah, man! 't was my two hands
That led you all the way."

"I hid my eyes from your two eyes
That they might see aright."
"Yet think you 't was a star that led
Your feet from height to height?
It was the flame of my two eyes
That drew you through the night."

With trembling hands he threw the door,
Then fell upon his knee.
"Ah, armêd vision cloaked in light,
Why do you honor me?"
"The Angel of your Strength am I
Who was your sin," quoth she.

"For that you slew me long ago
My hands have raised you high;
For that you closed my eyes — my eyes
Are light to lead you by.
And 't is my touch shall swing the gates
Of heaven when you die!"

Theodosia Garrison.

II. WEAK AND SLUGGISH BREATHING.

Many persons have a kind of sluggish breathing. They breathe as if greatly fatigued; often in reality they are constitutionally tired. In general, the chest is carried too low, and the lungs are cramped by a continual surrender or collapse upon them of a rigid bony frame work.

There are perhaps few people whose health, spirits, and power would not be improved by some attention to breathing. As already shown, the lungs are at the mercy of the box in which they are encased. When a man allows this to sink the breathing is impeded. Everyone should make some experiments to discover what control he has over his abnormal conditions by managing his breath.

Let someone in great weariness hang to a pole as passively as possible and inhale a deep breath, then lift the weight on the balls of the feet, giving out the breath. Then, as before, let the whole weight be supported by the arms, taking another full breath and giving out as before. The fatigue will soon be lessened.

Let the student lie upon the floor in weariness and stretch, breathing deeply, giving up completely, feeling his weight bear downwards. Then have him take a deep breath in union with the stretch, enjoying both as in a deep yawn. He will be surprised at the change in his feeling.

Many people are too weary to sleep, and need such exercises as these before retiring. On account of the constrictions of the day, there is interference with breathing and the fatigue may cause too great a collapse upon the lungs, so that when such a person is asleep the breathing is irregular and weak. One should never lie down to sleep without passing into a normal condition of mind and body.

By practicing these or other exercises, or by laughing heartily, one may entirely throw off a "cold" by quickening the circulation.

In pantomimic expression it will be shown that the torso expresses volition: its relaxation means insensibility of will; its expansion animation of will. Hence, it can be seen that to correct such breathing there must be some education of the voluntary nature.

The man must cultivate courage and hope, walk with more joyous self-assertion, and a more elastic step. Not only should his weight be carried forward on the feet, his chest be expanded, but he himself must be full of animation and earnestness.

Exercise 30. Freedom of Life Breathing — II.

Much has been said regarding control of breath, persevering practice of deep breathing, or holding it for a short time to correct abnormal and even pathological conditions in the physical body. The half, however, has not been discussed. One who wishes to grow strong, to preserve his health, and to do a great amount of work in the world, must form the habit of deep breathing on rising every morning and on retiring at night. With a few simple gymnastics in addition to the exercises in breathing, sounder sleep may be induced, and in the morning the circulation can be equalized and the man go forth with exhilaration and joy.

Since, as previously shown, man breathes many thousand times a day, while he takes water only six or eight times and food about three times, we can realize the marvelous power he can gain by breathing pure air freely, deeply, and fully, and keeping in active condition the muscles concerned in respiration.

An erect posture should also be cultivated, and such gymnastic exercises taken every morning as will develop the muscles that keep the chest active in sitting as well as in standing.

There are many faults which greatly affect the whole bearing and expression of the man, fetter the breathing and interfere with the normal motor action in the use of the voice. Pantomimic should accompany vocal training.

Exercise 31. Flexibility of Breathing.

Agility or flexibility of breathing may be established by practicing passages full of great weight, requiring slowness of movement, in contrast with passages of great excitement. It should be observed that both require frequent breathing, but the rhythm of taking the breath is different in the two emotional conditions.

I sprang to the stirrup, and Joris, and he,
I galloped, Dick galloped, we galloped all three. . . .
Not a word to each other, we kept the great pace,
Neck by neck, stride by stride, never changing our place.

"Ride from Ghent to Aix" **Browning.**

PIRATE STORY.

Three of us afloat in the meadow by the swing,
  Three of us abroad in the basket on the lea.
Winds are in the air, they are blowing in the spring,
  And waves are on the meadow like the waves there are at sea.

Where shall we adventure, to-day that we 're afloat,
  Wary of the weather and steering by a star?
Shall it be to Africa, a-steering of the boat,
  To Providence, or Babylon, or off to Malabar?

Hi! but here 's a squadron a-rowing on the sea —
  Cattle on the meadow a-charging with a roar!
Quick, and we 'll escape them, they 're as mad as they can be,
The wicket is the harbor and the garden is the shore.

Robert Louis Stevenson.

Wise, of a wisdom far beyond our shallow depth, was that old precept: Watch thy tongue; out of it are the issues of life! "Man is properly an incarnated word:" the word that he speaks is the man himself. Were eyes put into our head, that we might see, or only that we might fancy, and plausibly pretend, we had seen? Was the tongue suspended there, that it might tell truly what we had seen, and make man the soul's-brother of man; or only that it might utter vain sounds, jargon, soul-confusing, and so divide man, as by enchanted walls of Darkness, from union with man?

Carlyle.

III. MOUTH BREATHING.

Many physiologists and physicians have contended that the chief cause of sore throats is the habit of breathing through the mouth. Accordingly, teachers have made students deliberately close the mouth and inhale air through the nose.

This has induced a variety of mechanical constrictions and has led some to breathe consciously, voluntarily, and too seldom. Proper reception of breath must be the spontaneous effect of receiving a mental impression. Even the amount of breath will be regulated by the intensity of thinking and feeling. Frequency will also be mentally or self-determined.

Yet an important truth may be perceived in the fact that man should breathe through the nostrils. If he is speaking out of doors, and will take an easy, deep breath through the nose he will be better able to relax his throat. In many ways it can be shown that nasal breathing is normal, while mouth breathing, except in passional or extremely excited expression, is abnormal.

How then can this normal condition be developed when once lost? In the first place, there must be right co-ordination and relaxation of the tone passage, of the back of the tongue since relaxation begins there, and of the whole pharynx. Any normal use of the voice, or true co-ordination, will then cause breathing to be primarily through the nose.

Narial breathing, however, is rather an organic than an artistic condition. It belongs to life rather than to voice breathing, and should be developed by exercises for the development of vitality.

How can this be done? One good exercise is running. Those who run with the mouth open have little endurance, but when the mouth is kept shut against the great temptation to pant or breathe through it the exercise will be found beneficial in establishing normal conditions of breathing.

Another good exercise is boxing, or any kind of vital gymnastics, excited actions or games. In all these the student should keep his mouth closed. When a teacher of expression finds a pupil who shows habitual mouth breathing, night and day, he must first of all examine the condition of his tonsils and soft palate. It may be that a surgical operation is needed.

When there is an obstruction at this part the breathing will necessarily be through the mouth. One leading physician in this country says, " Nose breathing will naturally follow when there is no obstruction in the pharynx or the tonsils or from catarrh."

There is much truth in this, but doubtless other causes exist. Mouth breathing may express weakness, irresolution, or a lack of self-control and self-centred confidence.

When a teacher meets with such a case, after examining and discovering that there is no obstruction at the tonsils and no case of catarrh that keeps the passage closed, but that the mouth breathing is merely a habit, the student should be recommended to practice running up hill, or other vigorous physical exercises, and try to develop greater confidence and alertness. In all such instances there should be special care to breathe through the nose.

Exercise 32. Freedom of the Tone Passage in Breathing.

Another helpful exercise will be to practice with relaxation and co-ordination the letter "m" without allowing the lips to part, taking breath and giving "m" with a great reserve of breath in the middle of the body and decided relaxation of the tongue. This exercise, which will be explained later, is helpful in enabling the student to realize the sympathetic ease and pleasure of a deep draught of air through the nose.

All the preceding breathing exercises should be practiced with the mouth closed and the pharynx and narial chambers open and free; especially with the taking of deep, long breaths, holding them and giving them out slowly, not only for development of the retentive action of the lungs but also to strengthen the habit of breathing through the nostrils.

IV. AUDIBLE BREATHING.

A word should be said also regarding the habit formed by many speakers — and even by singers and actors — of audible inspiration of air.

In general, whenever there is any noise in the taking of breath there is some constriction, usually at the summit of the pharynx or the pillars of the soft palate, and even along the whole tone passage. That one can take in perfect silence a deep and profound breath can easily be demonstrated by the student. If he place himself in a good position and inhale a deep, full breath suddenly, he will find that if he does not resist it, but gives his energy entirely to the act there will be perfect silence.

In the practice of breathing exercises many students unconsciously resist the breath taken in, and think that because of the amount of noise they are making a great effort in taking breath. This is true, but the labor is directed to hindering the free inflow of air. They take breath through constricted parts. They produce opposition to the reception of breath by their own will, constricting the throat.

It is of real importance that the entire tone passage should be relaxed during the taking of breath. Not only do the lungs become active in preparation for speaking, but the throat becomes passive. This allows silent and free passage of breath into the lungs through its own channels and any noise indicates constriction or absence of obedience to the fundamental principle of co-ordination. A labored inspiration caused by taking breath through a constricted or narrowed aperture is always injurious.

It will be observed later that in the co-ordination between breathing and the pharynx silence results. This is due to the fact that the whole soft palate and nose have become relaxed.

It is a good exercise to practice simple inspiration, feeling the relaxation of the jaw, tongue, and all parts, but keeping the lips closed, making sure that the respiration is absolutely silent.

V. BREATHING TOO SELDOM.

One of the most common faults in the use of the breath, especially among those who read their discourses as contrasted with those who speak extemporaneously, or as those who think abstractly, is breathing only when compelled to do so from exhaustion.

The remedy for this is a mental one. There must be development of attention and concentration. The speaker must individualize his ideas; receive more vivid impressions. We have already found that with every reception of an impression by the mind there is a co-ordinate effect upon breathing, shown by inhalation of air.

An abstract thinker, as has been shown, breathes seldom, while one who thinks with vivid, concrete ideas breathes more frequently. This individualizing of the impression not only improves breathing but causes better variation of pitch, better rhythm, and in every way improves voice modulations and conditions.

The student should individualize intensely his successive impressions, taking time to breathe easily and freely and to accentuate the changes in his expression so as to prevent his becoming tedious.

Exercise 33. Unity of Forces.

One remedy for breathing too seldom is the avoidance of hurry, or what is known as the fault of forcing one's rate. The student should take some reposeful, dignified selection, vividly conceive each idea, take time for contemplation and realization of his impression, and justify long pauses by wide variation of pitch and inflexion. In this way he can establish more vital co-ordination between the rhythm of his thinking and breathing already referred to, and also develop a certain repose and restfulness. Man thinks quickly, and if he forces himself to hurry his thinking will outrun his imagination and feeling, and especially his breathing. There is a certain unity of the rhythm of all parts of his nature which must be established.

> "I go to prove my soul!
> I see my way as birds their trackless way,
> I shall arrive! what time, what circuit first,
> I ask not; but unless God send His hail,
> Or blinding fire-balls, sleet, or stifling snow,
> In some time, His good time, I shall arrive:
> He guides me and the bird. In His good time!"
>
> **From "Paracelsus"** **Robert Browning.**

VI. COLLAR-BONE BREATHING.

This is a frequent fault with emotional preachers or nervous speakers. Some men who ordinarily never have collar-bone breathing at once develop it when they stand up to speak. What is the cause of this? It is due to timidity, to an hysterical attitude of mind or to self-consciousness.

In examining a class of thirty or forty ministers I have frequently required all of them to speak some simple selection or merely to count. On going behind them I could locate those who had suffered from sore throat in speaking. I simply observed whether they moved their shoulders or not. Those who did so displaced the breathing, and while this habit in a strong man might not soon cause a sore throat, a consequent congestion of the pharnyx is sure to follow. Rarely have I made a mistake.

Lennox Brown, the eminent physician and specialist in throat diseases, told me that he had examined five thousand cases and each one who suffered from the so-called " minister's sore throat " had this fault of breathing. My own observation corresponds with his opinion. Medicines may temporarily relieve but there can be no permanent help unless the speaker corrects the fault of breathing which is the cause of the congestion of his pharynx.

There are, however, many other abnormal physical conditions which may result from this method of breathing. Those who do not breathe in the center of the body are extremely nervous after speaking. Sometimes it may take five or six years to develop such normal conditions, as will be noticeable to other people or even to the man himself. Naturally, those who manipulate the breath from the chest have less in the lungs and do not breathe so frequently. It is only in some moment of great strain that we breathe by moving the shoulders. Even then such labored breathing is indicative of weakness.

In lifting a weight or in performing some physical feat in proportion to his strength, a strong man will breathe in the middle of his body, but a weak man, who must unduly strain to perform the feat, will show action at the shoulders.

Similarly in the use of the voice. A normal and easy tone should be associated with breathing in the middle of the body. Any abnormal screaming, hysterical agitation and shouting, any action in short which brings in this labored method of breathing, causes constriction at the throat and completely upsets the primary co-ordination between breathing and the tone passage.

Exercise 34. Dignity and Repose in Breathing.

In the correction of this, various expedients have to be adopted, such as sitting with the arms down at the side holding firmly the rungs of a chair, or lying on the back, breathing or speaking easily. Slow, calm, and reposeful concentration also, or the acting of some character, such as Don Pedro or other prince, in dignity and repose, is emphasized. Passages of great intensity, but with calm dignity and control, such as Henry Fifth, or Richmond in Richard III, may be practiced with great advantage.

BATTLE CRY.

More than half beaten, but fearless,
  Facing the storm and the night;
Breathless and reeling, but tearless,
  Here in the lull of the fight,
I who bow not but before Thee,
  God of the fighting Clan,
Lifting my fists I implore Thee,
  Give me the heart of a Man!

What though I live with the winners,
  Or perish with those who fall?
Only the cowards are sinners,
  Fighting the fight is all.
Strong is my Foe — he advances!
  Snapt is my blade, O Lord!
See the proud banners and lances!
  Oh spare me this stub of a sword!

From "Man Song" John G. Neidhardt.

VII. LABORED BREATHING.

Faulty modes of using the breath are almost innumerable. There are many other labored methods, aside from collar-bone breathing and lack of centrality. Some instructors even teach that one should breathe by the lifting of the ribs at the side.

This view entirely overlooks the fact that the abdominal muscles are all expiratory, and that, as I have tried to show, it is the inspiratory muscles that need most development.

Of course the abdomen moves outward in taking a deep, strong breath, on account of the activity of the diaphragm, but to force the centre of breathing too low is to introduce constrictions into the diaphragm and into all the muscles of respiration. I have found that such faults, due often to bad teaching, cause congestion of the pharynx and great irritation of the nervous system. They are mostly associated with breathing at the summit of the chest.

In a leading city of this country I once went to hear a minister who was making a great reputation. He did not seem to have the movement of the shoulders common to most preachers who misuse the voice, but instead a peculiar constriction across the chest. I could see that every word was rasping his nervous system, and that his collapse would be only a question of time.

That afternoon I met one of my intimate friends, a university professor, and asked him frankly if he thought it would do for me to write a letter to this clergyman and warn him; but my friend shook his head and said he was a little "peculiar." He himself was a teacher of ministers and knew how sensitive such a man was to any criticism, or suggestion on voice or delivery. I said, "Mark my word, it will not be long before he will be compelled to take a rest." Within a year I saw in the paper that Doctor So-and-So was suffering with nervous prostration and had been "relieved for a year to make a trip to Europe." This was obviously due to the speaker's misuse of his voice. During the period of rest he might receive relief, and nature might return to a normal condition, but this could only be temporary. Such a man, from lack of a little vocal training, shortens his life by at least ten years.

The fault in this particular case was not regular collar-bone breathing, but a peculiar cramping of the chest, and a forcing out of the breath to make loud tones from exhausted lungs.

This example illustrates the difficulty of classifying faults of breathing. Every individual case will present a new variety. Some may class this with collar-bone breathing because the preacher manipulated his breath from the summit of the chest.

IX. THE TONE PASSAGE

Voice is simply breath in vibration. Accordingly, the vibrations or "sound waves" must be allowed freedom of exit. The emission of such a succession of vibrations or waves demands a free avenue. The peculiar nature of this passage and the complex manner of opening it call for earnest study.

The word "mouth" is used indefinitely. Sometimes we mean merely the parting of the lips; sometimes, the chamber in which the tongue rests and performs its different functions. In this sense we must recognize two openings of the mouth: the external or anterior, and the posterior one, which opens into the pharynx. As the forward part of the mouth is drawn open it is co-ordinated with the closing of the back part, while the dropping of the latter is dependent upon co-ordination with breathing. From the physiological point of view these are wise provisions of nature because when food is in the mouth the back opening into the pharynx must be closed. Often in such a case when a person begins suddenly to speak there is an attack of coughing, because the opening at the back has allowed a particle of food to pass downward into the larynx.

The parts of this tone passage especially needing attention are the lips, the jaw, the tongue, the soft palate and the pharynx.

I. THE LIPS.

A normal action of the lips in speech is important because when there is any constriction of these there is a corresponding constriction in the tongue or the pharynx.

The function of the lips is to remain in repose resting against the teeth, at any rate never compressed against or extended from them. When the lips are protruded the tip of the tongue is always drawn back from the lower teeth.

A drawing down of the corners of the mouth often causes a corresponding droop of the outer part of the nostrils, and is frequently associated with a kind of whining nasality. It is worth while to manipulate the corners of the mouth, especially the muscles below it when they become too short, and the muscles above when they are too long. The best exercise, however, for the elevation of the corners of the mouth is cheerfulness and joy in life, but especially in the practice of all vocal exercises. There should be a joyous expression over the whole face.

Lamperti required his students to practice all their exercises with a smile, never showing the under teeth but rather the upper ones.

II. THE JAW.

The lower jaw is simply a box containing the tongue. If the jaw is constricted, held in any way rigid or kept closed, the surrender of the tongue and the right opening of the mouth and pharynx become impossible. In little children the jaw can be easily relaxed and the opening of the mouth seems free and natural. Resolute endeavor and antagonism to opposition cause many persons to acquire a perpetually constricted lower jaw. A large and firm jaw generally expresses decision and firmness of character, but this need not degenerate into permanent rigidity.

What is needed is the power not only to close the lower jaw firmly but to surrender it instantly. The alternation between activity and passivity is a sign of power. Stiffness is never a true indication of strength.

Keeping the teeth together habitually is one phase of stiffness, and arises from a want of control or a lack of responsiveness of the organism to the actions of the mind.

The principles of training should be applied to the development of the jaw, the flexibility and free performance of its elemental action.

So far as the use of the voice is concerned the many actions of the jaw is to get out of the way and allow the organs of speech, and especially the tongue, freedom of action.

The first exercise should consist of a simple passive surrender of the whole under jaw. The student should feel the weight of the tongue and jaw.

Another exercise should be the use of syllables such as "fa" or "va." The bringing of the under lip against the upper teeth causes a lifting of the jaw, while the opening into a large vowel chamber brings surrender. There is thus instituted an alternate lifting and relaxation of the jaw.

When desired, the exercise may be practiced rhythmically as an iambic or trochaic foot. The repetition should be slow at first to make sure of the complete surrender of the jaw and the vowel chambers, becoming increasingly rapid to develop facility in relaxing the parts.

Another exercise is to take the first four letters of the Greek alphabet and, making the vowels large, practice them rapidly one after the other.

III. THE TONGUE.

So important is the function of the tongue in speech that its Latin name has given the basis of the word "language." Its education is the most important point in developing the openness of the tone passage.

In general, we can look into a mouth and tell by the passivity or position of the tongue whether the voice is trained or not.

Exercise 35. Repose of Tongue—I.

In training the tongue the first thing to be noted is whether the whole organ lies in its normal bed. When properly relaxed the tip rests passively against the lower teeth. This is the surest test of its relaxation. It may be forced actively against the lower teeth which causes constriction at the back of it; but there must be no pressure.

Another test of this passive surrender is obtained by looking in a small mirror; there should be a large space above the tongue and under the soft palate at the back of the pharynx. This space, however, varies with different persons.

There are more automatic actions and tendencies to constrict the tongue than can be found in any other part of the body. In more senses than one "it is an unruly member." Nearly all, if not all, faults of the tone passage are associated with some constriction of the tongue.

Throatiness or a muscular or gutteral quality of voice is due in probably every case to constriction of the back of the tongue and the pharynx with which it is always intimately related.

In nasality the constriction of the back of the tongue is opposite the soft palate, while in throatiness the constriction generally forces the tongue backward and opposite the pharynx.

In freeing the tongue there should always be passivity in the region between the chin and the larynx. If we place a finger across this part halfway from the larynx to the chin we find it active in swallowing, and we detect similar rigidity in throatiness and occasionally in nasality. It is a good exercise to make simple tones such as "ah," and observe carefully the relaxation of this region while so doing.

Exercise 36. Repose of Tongue — II.

The development of the passivity of tongue, jaw, and the various parts of the mouth is important. One helpful exercise is to keep the mouth closed, slowly and steadily inhale breath through the nostrils, and at the same time, feel the back of the tongue relax, and later the weight of the whole tongue and the lower jaw with a separation of the teeth. Keeping the lips together repeat this many times, being sure that the back of the tongue first surrenders, then the whole tongue, then the jaw, and that all this time the breath is being inhaled.

These are also good exercises for developing right breathing through the nose, since true narial breathing depends upon the relaxation of the back of the tongue and the soft palate more than upon anything else.

In all exercises for the tongue be careful that the chin or jaw is not drawn down or any direct action permitted anywhere along the tone passage. When the tongue is in its place, it is not pushed against the lower teeth but lies flat in its bed. Be sure also that the lips do not protrude from the teeth. A common fault is the separation or protrusion of the lips from the teeth when the mouth begins to open, "cod-fishing the lips," as it was humorously called by Dr. Guilmette.

It may be necessary to look into a mirror to observe whether the tongue has any jerky movement, or lies completely passive; or whether there is a protrusion of the lips, a drawing down or a gentle elevation at the corners, as in a smile. Every portion of the mouth, tongue and pharynx should be observed with reference to this sympathetic relaxation; the breath, in the meantime, being easily and sympathetically retained in the middle of the body where all voluntary vocal action must be directed or indicated physically, and where all such activity must naturally and harmoniously centre.

Exercise 37. Repose of Tongue — III.

Slowly and easily inhale, simultaneously relaxing the tone passage, beginning at the back of the tongue, then relaxing the jaw, and finally the lips; immediately give "ah" as gently as possible, either with a rising inflexion or as a "start in song." Repeat this twenty times, relaxing and resting after each tone to prepare for the next one.

IV. THE SOFT PALATE.

Constriction is frequently found in the soft palate. One kind of constriction may be between it and the back of the tongue, which causes one species of nasality. Another at the side, or rather in the pillars of the soft palate, renders the voice flat and hard. These two constrictions are often united.

Development of passivity is best secured through the general co-ordination and especially in the education of the tongue. Under nasality certain exercises will be given for this particular region. The humming of a soft "m," keeping the vibrations carefully in the mouth, relaxing the whole tongue and soft palate will frequently help to remove constrictions. A gentle word, such as "home," may be employed in a way that will soothe and relax all the parts of the pharynx.

The constrictions of the pillars of the soft palate are chiefly of the styloglossus muscle. The relaxation of this muscle is secured through the relaxation of the back of the tongue. The preceding exercise also helps. The student can open his mouth, relax his tongue, and by means of a mirror observe the condition of the soft palate itself as well as its pillars. There should be a large free space at the back of the pharynx, and everyone must try to attain this by easily taking breath and simultaneously relaxing the back of the tongue and all its related parts.

The soft palate is always intimately connected with the back of the tongue, and control of the latter brings co-ordinate control of the former. In the utterance of "m," "n," and "ng," the only nasal elements in the English language, they act in union, the soft palate being down upon the back of the tongue. But in the utterance of these elements we can discover whether the soft palate is relaxed by the degree of openness and freedom of the narial vibrations. In all so-called nasality or abnormal nasal vibrations there is constriction at the back of the tongue as well as in the soft palate. Though no one seems to have noticed it, this nasality is more pronounced in the nasal elements than even in other letters supposed to involve no nasal vibration. We must distinguish between normal or narial vibrations of the chambers of the nose and abnormal vibration or the so-called nasal due to constriction. Every emission of the normal, nasal letters requires great relaxation of the back of the tongue and the elevation without constriction of the whole soft palate. Practice for freedom at this point requires patience and perseverance and is well worthy of attention.

Exercise 38.
Agility of the Soft Palate.

When the soft palate is sluggish, or seems to fail to discharge its own elemental actions, and to lose its activity by becoming confused with the actions of the tongue I have found the following exercise of great value. Utter "ah," or any vowel which a pupil gives most freely and without nasality, as easily and openly as possible, immediately following it by "ng." In the "ng" of course the back of the tongue and soft palate come together. In the vowel they are far apart. Then alternating the sudden emission of the vowel with the soft palate and back of the tongue as far apart as possible, with "ng" where they are close together, we secure a kind of spring about of the soft palate and back of the tongue.

For the elimination of nasality I have found this a helpful exercise, which I have named "agility of the soft palate." I had a peculiar case once of a soft palate that was too short. I hit upon this exercise to enable the man to stretch his soft palate, and to develop the weak and undeveloped muscles controlling it. It was simply an application of the principle of elemental actions, or vocalization of functions and shows the advantage of knowing nature's processes of growth and development.

The soft palate plays a more important rôle in the production of vowels than we are likely to realize. When sympathetically but elastically elevated, it forms a means of uniting with the pharyngeal and mouth vibrations in the vowel, the rich accessory narial vibrations, or those from the upper portion of the pharynx and nose. These, when normal, constitute one of the richest and most beautiful elements in tone. When abnormal or perverted they become the most disagreeable qualities of the voice.

V. THE PHARYNX.

The various parts of the tone passage act almost as one. Hence, in training, after having secured the surrender and elementary actions of each part, the student should at once pass to the education of the pharynx, which must be developed in union with the whole tone passage.

In cases of serious constrictions and faults, such as throatiness, nasality, and flatness, or general narrowness of the tone passage, there must be more care in the education of specific parts to secure normal action and especially the ability for normal passivity of all the parts.

Where the tone passage is moderately normal and the parts act sympathetically, the whole may be taken together.

It is difficult to reach the pharynx directly, but indirectly we can easily secure a proper passive condition of its parts. The lips, jaw, and especially the tongue, have a mysterious connection with the pharynx and any constrictions of these cause corresponding constriction at the pharynx, the real gateway of the voice.

From the pharynx two passages open downward, one through the larynx into the lungs, which is always open except during the act of swallowing, and the other, the passage through the esophagus into the stomach.

At the summit of the pharynx is the soft palate, which, when normal is down against the tongue — its position in sleep and in ordinary life — and the pharynx extends up into the posterior nares. When the soft palate rises, the pharynx and the mouth form a continuous tube, the chief tone passage, though the nose with soft palate down is the tone passage in nasal letters.

Exercise 39.
Freedom of Tongue and Pharynx.

Place the thumb across the throat, halfway from the chin to the larynx, upon the muscles of that region; when the pharynx and the back of the tongue are free from constriction these muscles are soft and relaxed. If there is a tightening here, then the back of the tongue and the pharynx are constricted.

The various parts of the tone passage act almost as one. It is not necessary, except at the beginning, or in the case of serious faults, to separate the training of the lips, the jaw, the back of the tongue, and the soft palate from one another. When the parts of the tone passage are normal and only need to have the openness increased, the method of developing the normal action of these parts can be included in the education of the pharynx.

The pharynx is difficult to bound or locate. Three passages from the outer air, two nostrils and the mouth, open into it, the soft palate being the gateway that closes or opens the passage through the mouth or the nose. The soft palate has power to open or close either the two nasal passages or the mouth passage, but cannot close both at the same time, neither should it open both together, as this induces nasality, snoring, and other forms of audible breathing. The pharynx below has a passage from the esophagus into the stomach and also one through the larynx and trachea into the lungs.

The lung passage is at the front of the esophagus, through a non-collapsible tube composed of cartilaginous rings. At the back of the tongue is the epiglottis. This lid, however, does not close down upon the voice box, but the box is drawn upward under it. When we swallow food or liquid it is passed down the esophagus into the stomach. Except for the momentary interruption of swallowing, the passage into the lungs is continually free and open, as is also the passage through the nose. The pharynx, accordingly, is always open, and its constrictor muscles, of which there are three sets, the upper, the middle, and the lower, are relaxed except in swallowing.

The act of swallowing, from whatever point of view it may be observed, is one of mystery. It is a physiological and partly voluntary action which is extremely interesting and only escapes our wonder because of its frequency. We think, for example, that we can swallow whenever we wish, but if we hold the back of the tongue away from the fauces the act of swallowing is impossible.

Just as we go to swallow there is an action of the back of the tongue. It " touches the button " and nature does the rest.

Now, these swallowing muscles are frequently active when people try to make tone; some try to pull the mouth down actively instead of relaxing the back of the tongue and other parts, thus opening the mouth passively. The use of muscles which are important for mastication and swallowing frequently obstructs or constricts the tone passage.

We can observe this part of the action of swallowing by placing the thumb across the throat just above the larynx or Adam's apple. The moment we swallow, we feel the muscles under the chin tighten, while the larynx is drawn sharply upward.

In the act of swallowing, the constrictors of the pharynx contract, the upper series first, afterward the middle and lower ones, and then these with the aid of the tongue and the soft palate force the food into the esophagus.

The tightening felt above the larynx in swallowing is a part of the effect of the contraction of these muscles. Whenever such a thing happens there is also constriction of the pharynx.

In contrast to this, compare the flexible and limp condition of the muscles above the larynx in making a free, open tone. Relaxation of the constrictors of the pharynx and the whole throat is absolutely necessary to all freedom or resonance of tone.

X. FREEDOM OF THE TONE PASSAGE

The specific parts which may obstruct the emission of the voice have been studied. The first step in securing freedom of tone, as here indicated, is to come to some understanding of the function or normal action of each individual part. It is now necessary to study more specifically how to educate these parts for the removal of constrictions and abnormal conditions or to establish their proper action in voice production.

I. ACTIONS OF THE PARTS OF THE TONE PASSAGE.

These parts, especially the pharynx and mouth, are used for two purposes, each distinct from the other. When the mouth opens to receive food the front of the cavity opens, while the back of the tongue rises and in conjunction with the soft palate closes the passage into the thorax. In closely studying the actions of these parts in life breathing and in tone we discover an important difference in functioning. That is, the mouth is actively opened, the lower jaw pulled down, and the back of the tongue raised against the soft palate which allows an opening through the pharynx and nose. This closing has to be developed by a process of education. An infant does not close the passage, as is shown by the fact that when a teaspoonful of water is given some of it now and then goes into the larynx and the child coughs. But trouble results even from this education, since the manner of opening the mouth for food becomes so habitual after a while that nearly everyone endeavors to do this in the same way for tone production. The result is constriction at the back of the tongue and the pharynx.

For the second office of the mouth — tone production — it is necessary to develop the passive surrender of the tongue and jaw and to open the tone passage as is done by the child for the teaspoonful of water. To develop a natural opening of the mouth in speech, let us direct attention once more to the effect of a sudden impression of surprise. In an exclamation, the lower jaw is not forcibly drawn down; it drops of its own weight; and even before this the back of the tongue relaxes. It is at the pharynx, or back of the tongue, that the opening of the passage for tone production begins, because, as we have seen, the rear of the mouth, rather than the front, forms the gateway for tone. In opening the mouth to take food, the beginning is at the lips.

These two modes of opening the mouth demand special attention. One is active, the other passive. In the first, the jaw is pulled down and the back of the tongue rises; in the second, the back of the tongue and the pharynx relax in co-ordination with the taking of breath.

This passive opening of the mouth results from the reception of an impression and is a factor in the preparatory action for speech. It is associated with the taking of breath and constitutes one of the important preparatory responses establishing correct conditions for tone.

II. SENSE OF SURRENDER.

In studying the action of the tone passage we note something peculiar. We find no muscle to draw the tongue down, and if the jaw be pulled down actively the tone passage will be constricted at an important part and will not be opened.

The education of the tone passage brings us to one of the important but often entirely overlooked facts regarding the training of the human organism, — surrender.

If we stretch out the hand and make it active and then withdraw the will from it, we can feel its weight. When the will is in the hand, there is no sense of weight; but when withdrawn from it to the wrist we feel the weight.

The tone passage is not opened by direct voluntary action. It must be relaxed. It opens because of the surrender of the back of the tongue and the jaw. All parts of the mouth, including the constrictors of the pharynx, all the muscles used in swallowing, are simply relaxed. This includes the pillars of the soft palate, but not necessarily the delicate muscle that holds this up. The soft palate may be up or down and the passage open. Accordingly, the student should carefully develop the sense of sympathetic surrender at the back of the tongue, and of all the parts of the tone passage. This sense has so many examples in the different steps to be taken that it requires some specific attention here. For instance, in breathing, the release of the actively retained breath after a tone is extremely important. I have found many voices faulty from the simple reason that the breath was not surrendered at the close of a phrase.

It is astonishing how many defects in the use of the voice are caused by a lack of the simple giving up of the different agents at the end of their action. Even in articulation this surrender is absolutely necessary. It is an essential part of their right production. Many agents must be trained to react instantly after action.

Note the action of the diaphragm at the close of uttering an isolated word like "halt." Say "No!" so vigorously as to be heard one hundred yards away and observe what is done in order to project the tone to a distance.

We increase preparatory actions and conditions, but immediately after this speech we notice a recovery or recoil from these. The tone passage at once returns to its habitual condition and the surplus breath taken to support and produce the tone is instantly released.

In teaching I have found many cases of staying the activity, especially in the diaphragm after speaking a phrase, and I well remember the one which caused me to note this, — it was that of a gentleman studying for the stage. He was enthusiastic and much in earnest but his throat was in an extreme state of irritation, and I observed him for several lessons to discover the real cause. At last I found that he did not release after giving an exclamation or phrase but endeavored continuously to hold his breath, thus causing his breathing for voice to interfere with his life breathing. This release is of fundamental importance in the co-ordination of voice with life breathing.

Returning again to the illustration of this principle in regard to the tone passage observe that the education of the jaw requires surrender;[1] when it is held rigidly or constrictedly active, neither the tongue nor the pharynx can be free.

On account of concurrent actions, or intimate relations of the parts, when there is no extremely abnormal action in some part, the second step is to take the whole tone passage together.

These steps, important as they are, are only preparatory, according to the principles advocated in this book. The whole tone passage does not perform its functions actively or directly. It properly opens for the production of tone only by co-ordination with the right activity in retaining the breath. The will must centre activity, not in the throat but in the diaphragm. Simultaneously, but indirectly and by sympathetic co-ordination, the passageway for the emission of tone becomes open.

Why is it impossible for conditions of the tone passage to be established by direct action of the will?

In the first place because there are certain involuntary and even unconscious actions concerned in the establishment of conditions of voice. We cannot open the throat by will. Yet the back of the tongue relaxes, and the whole throat and jaw open in right sympathetic response to the breathing when this responds to thinking.

Accordingly, the real work of developing openness comes after the preliminary studies and the removal of constrictions from individual parts by provisional exercises. The adequate education of the tone passage must be secured by the patient practice of exercises which co-ordinate all its parts sympathetically with breathing.

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[1] For a fuller explanation of surrender see author's book on training.

III. CO-ORDINATION OF PREPARATORY ACTIONS AND CONDITIONS.

Exercise 40. Co-ordination of Preparatory Actions.—I.

Observe, again, some natural exclamation, command, or utterance of some specific, definite word, such as "No." We find that the conditions for voice production are established immediately before speech. We not only take breath and open the throat in speaking but these conditions occur together and immediately precede speech.

Accordingly, the best exercise for the education of the tone passage is one associated with the taking of breath immediately before speech.

Let us first regard individual sounds or words and the normal preparation for these in natural utterance. Then we must increase the fundamental elements of these precedent actions simultaneously and in proper union.

We have already found that these actions or their activity in the middle of the body and passivity at the throat are natural and simultaneous. The point now is to accentuate them immediately before producing tone.

Such an exercise as practicing a word like "No," may appear so simple as to be ridiculous. Yet it is not only important, but even difficult to master. It requires unusual care and patience to restore perverted constrictions of lips, tongue, soft palate, and pharynx, to their normal, sympathetic relationship to breathing. Even in this we may still find that the action is too labored and does not bring co-ordination. In such a case, the breathing itself is constricted or in some way abnormal. The two actions test each other, because when perfectly natural they are simultaneous and correct action can be observed only by the co-ordinate union of both.

Exercise 41. Respiratory and Pharyngeal Co-ordinations—I.

Can you express the tenderness of the following beautiful poem in the first word, allowing imagination and feeling to establish all the co-ordinate conditions, relaxing the tone passage, sympathetically retaining the breath and expanding the whole body? After getting a satisfactory grasp of the conditions in this word the whole lyric should be read simply and naturally.

ROSE AYLMER.

Ah, what avails the sceptred race,
  Ah, what the form divine!
What every virtue, every grace!
  Rose Aylmer, all were thine.
Rose Aylmer, whom these wakeful eyes
  May weep, but never see,
A night of memories and of sighs
  I consecrate to thee.

Walter Savage Landor.

The student may practice this many times while the teacher observes his actions. It is often well for the pupil to think the words, grasp the situation, and go through the preparatory actions, stopping on the instant of speaking.

Exercise 42. Sequence of Co-ordination.

It may be wise to go still further back and prepare for this by taking breath with the mouth closed while feeling the passivity of the back of the tongue. The whole tongue then becomes flat and presses forward of its own weight toward the lower teeth. The jaw surrenders almost simultaneously; then the conditions may be released and this repeated many times until the initial feeling of the co-ordination is realized. After this the exercise may be brought to the immediate verge of speech, the easy and natural opening of the lips, not of their own volition but because of the surrender of the jaw; and this may be repeated many times.

It is always best in such cases to keep in mind the thought of the exclamation, and even the situation in imagination and feeling.

An exercise of this kind is the best that I have ever been able to invent for the correction of mouth breathing. In fact, to my knowledge it is the only one which has exercised permanent corrective influence.

The reason is that breathing through the mouth is associated with constriction at the soft palate, back of the tongue and summit of the pharynx. This exercise develops relaxation at the instant of taking breath in preparation for speech. If the opening of the mouth began at the lips such an exercise might establish mouth breathing, but if practiced properly and the opening of the tone passage carefully initiated in the pharynx and back of the tongue, it is the best correction for this fault.

I find that most people neglect patient practice at this point. They think it foolish to take a little breath into the lungs and feel a simultaneous passivity in the pharynx. Persevering practice of some fundamental detail will cause the exercise to be done correctly and greatly facilitate progress. Every true exercise has certain precedent and preparatory actions which must be secured before it can be properly practiced.

As soon as the whole tongue and jaw relax sympathetically with the first impulse to take breath, then the lips should also be allowed to relax and the tone immediately follow. There must be no stopping between preparation and speech. The conditions established by the preparatory actions are continuous though they immediately precede and really set up the conditions of speech; and they must be followed by utterance. A word or phrase really begins with the breath taken: this is the key to the almost innumerable and mysterious co-ordinations that produce the phenomena of a spoken word.

This continuity demands careful attention. If one raises a hammer but suddenly stays the stroke he must lift it a second time before he strikes. In the same way, no one can prepare for tone and arrest the preparatory action. It must be instantly followed by speech. The activity in taking breath recoils into speech, just as a ball thrown to the floor rebounds to the hand. Speech is produced, so to speak, by the rebound of the breath. This activity not only establishes passivity of the whole tone passage but initiates many other of the fundamental co-ordinations.

Exercise 43. Respiratory and Pharyngeal Co-ordination—II.

Uniting preparatory actions and release of voice conditions, we have a complete circle of actions in uttering a word or phrase and an exercise accentuating and naturally using them all, and can practice some word such as "No" or "Yes," a dramatic exclamation, or a word or phrase from some poem full of admiration of nature or tender feeling. Observe that all the conditions enumerated are established, and yet note that they are all sympathetically, naturally, and harmoniously united. After making the tone they must normally and naturally recoil into repose or their normal vital functioning.

THE WIND.

O wind, that is so strong and cold,
O blower, are you young or old?
Are you a beast of field and tree,
Or just a stronger child than me?
  O wind, a-blowing all day long,
  O wind, that sings so loud a song!

I saw the different things you did,
But always you yourself you hid.
I felt you push, I heard you call,
I could not see yourself at all —
  O wind, a-blowing all day long,
  O wind, that sings so loud a song!

Robert Louis Stevenson.

I am aware that some will object to this exercise because it seems so analytic, but when the parts have been habitually used in a wrong way for years analysis and care are necessary, and perseverance and patience are required at the start. When the little parts are properly restored and these insignificant steps receive attention, it is astonishing how rapid will be the progress. The reason for this is that such co-ordination is natural and the exercise simply restores normal conditions. However habit may have perverted natural actions, when the right appeal is made from habit to nature in training, response can be expected.

Where the exercise is given in class, individuals should be made to practice it before their fellow-pupils — sometimes one who does it well and sometimes one who fails — that they may learn from one another. The whole power of efficient vocal training depends upon the patient practice which is equally necessary whether for song or speech. It is universally needed because even those who have a normal use of the tone passage and of breathing will be sure to lack vigor in this co-ordination. Others will lack passivity. In such co-ordination will be slow; and with others it will be only occasional; but the great majority will doubtless show that they have lost it from perverted habits of careless speaking.

These co-ordinations must occur not only with individual words but with every successive phrase. With a pleasing speaker, these preparations take place with every complete idea. He breathes frequently and at every pause there is a renewal of these preparatory conditions.

A poor speaker, on the contrary, begins to speak without any of these precedent actions. In practically every fault of voice this co-ordination is lacking. It is a basic condition which is one of the first to be lost in the establishment of bad habits. Accordingly, it is necessary to study the succession of preparation and release.

Exercise 44. Co-ordination of Preparatory Actions — II.

Let us take a simple sequence of words such as counting, and give each one with definite preparation, accentuating all the conditions, even from one to fifty and from one to a hundred. Each word must be taken as an individual impression. Ample time should be allowed. Before each word there must be the reception of plenty of breath, and the opening of the tone passage, immediately following this by speech, then by the release; after this there is a renewal of conditions for the next word, and so on.

In relation to the tone passage, when the exercise, previously assigned, has been mastered, the student may evince a tendency to fix his jaw and to fail in the release of his whole tone passage after the first word or two. In such cases the practice must go back to its beginning and be again initiated with vigorous and careful accentuation of preparatory conditions. It may be well also to return to the practice of individual words or exclamations.

This unites all previous steps in the education of breathing and of the tone passage. All the elements must be present in easy and natural sequence, strongly accentuated because, like every exercise, it demands a vigorous increase of fundamental conditions to accomplish any true results. It may also be used, as previously shown, to test the centrality and normal action of respiration. It will increase power to breathe frequently, cause facility in the actions of the diaphragm and remove constrictions from the respiratory muscles. It will also develop rhythm and harmonize voice and life breathing. At the same time, it adds something in developing facility in the freedom and openness of the tone passage, in the direct natural response to the retention of the breath.

It enables the teacher to watch during the rhythmic sequence of the actions every small fault or little perversion which is the germ of the fault, every weak part of action that needs strengthening. But above and beneath all, one must feel the normal play of successive, natural actions establishing and restoring true voice conditions and bringing them into harmonious and rhythmic unity.

Exercise 45. Co-ordination of Preparatory Actions — III.

Each successive word in the exercise can be given first with a long, decided falling inflexion, then with a vigorous rising one. Then words should be given in groups of two, — a short rise on the first, and a decided fall on the second; a long emphatic fall on the first, and a slight, subordinate one on the second. They may also be given in larger groups of three, with a long falling inflection on two, a slight rise on one, and a short, subordinate fall on three; or the falling inflexion may be changed to one or to three, with corresponding modulations on the subordinate parts. Still larger groups of five, even ten, can gradually be introduced, as progressive steps, but the words should be given in natural phrases or vocal forms as if standing for thoughts.

Such practice will tend to correct faults of melody. Thus the student can be working, it may be unconsciously, for the correction of faults of voice while exercising breathing and the tone passage. He can also be training the ear and developing agility and other qualities to be explained later. In my own work as a teacher I have found it helpful thus to anticipate a principle before explaining it. This appeals to instinct and awakens a person's natural tendency to observe.

Sometimes, for variety, students may receive practice in declensions of nouns or conjugations of verbs in Latin or Greek, or other languages. The words in counting are, in fact, rather poor; a language with more open vowels, such as Greek, would be more helpful.

The words, however, are of little value; the point is to secure co-ordination, which may be done with any series of words.

IV. APPLICATION TO SPEECH.

After a person has mastered the right surrender of the tone passage, he will need directions to apply this to a sequence of words. Even after such an application as the preceding, it may be necessary to apply it still more definitely to exclamations, phrases, and sentences; that is, to co-ordinate these preparatory actions with thinking. A failure to co-ordinate thinking is the reason why, after seeming mastery, the student neglects the exercise in his everyday speech.

Exercise 46. Respiratory and Pharyngeal Co-ordinations —III.

Take, for example, the lyric from Shakespeare (p. 25); picture the beauty of the morning and the windows of Imogen's room in the castle as seen from the park. Realize, also, the loveliness of Imogen, who is supposed to be asleep in that room. Put admiration for all into the first word, "Hark!" repeating it twenty or thirty times, emphasizing not only imagination and feeling but the vocal conditions responding to this mental action.

Or still better, take the last word of the poem, which is three times repeated by Shakespeare. We can give "Arise!" its triple repetition, and repeating this many times while holding the spirit of the whole poem in mind, we shall find a correction of the tendency to perform co-ordination exercises mechanically. We shall also recognize the many natural elements in the exercise, or feel that co-ordination is not mechanical or conventional but a natural response in the vocal mechanism to the thought and emotion of the mind.

Or take "peace" or "love" from the following and render it in the same way, or some other word or phrase from some tender poem.

Peace beginning to be,
Deep as the sleep of the sea,
When the stars their faces glass
In its blue tranquility:
Hearts of Men upon Earth,
Never once still from their Birth
To rest, as the wild waters rest,
With the colours of Heaven on their breasts!

Love, which is sunlight of peace,
Age by age to increase,
Till Angers and Hatreds are dead,
And Sorrow and Death shall cease:
"Peace on Earth and Goodwill!"
Souls that are gentle and still
Hear the first music of this
Far-off, infinite bliss!

From "The Light of the World" **Sir Edward Arnold.**

In the right performance of the exercise we can easily feel any increase of the sympathetic retention of breath, greater expansion of the body, freedom from all muscular constrictions not only in the throat but through the whole organism, and can observe immediate improvement in the qualities of the voice. The tone will be purer, stronger, and especially richer in sympathetic vibrations.

Even after mastering the preparatory action in passional words like the preceding, there will still be a tendency to lose it in common conversation or ordinary reading. There must be further co-ordination of this with thinking. Every successive impression should cause an effect on breathing and the tone passage.

When we study the relation of thought to words, we find that nearly every impression consists in a number of words or a phrase sometimes called the "oratoric word." All good speakers show a beautiful, rhythmic phrasing — in subordination and in direct response to the rhythm of thinking — and with this a pleasing use of the voice is shown by the effect of the successive impressions, not only on words but on the breathing and the tone passage.

As soon as there has been a mastery of individual words and artificial groups as in counting or its application in passional phrases, the student should take some passage with vivid, individual ideas, carefully phrase it, making long pauses, with the reception of each impression. During these he should accentuate the preparatory actions and conditions, and then express the following phrase with great variety of inflexion and change of pitch. Each successive phrase should be varied from the last in a natural, progressive way. We can thus tell whether the exercise has become a habit, that is to say, whether the actions have been so developed and restored as to respond directly to the thinking of the man. Only in this case is an exercise truly mastered.

Exercise 47. Respiratory and Pharyngeal Co-ordinations — IV.

Accordingly, take a simple passage with vivid individual ideas. Pause longer than usual and then justify this action by touch, inflexion, and change of pitch upon the following phrase, but during the pause accentuate the preparatory conditions. Let the reading be easy and natural, but vigorous.

ATHENS AND SPARTA.

Athens reclined, but Sparta sat
  To take the cup.
Deliberating, Athens sat;
  Sparta stood up.
In speaking, Athens made a show
  Of word and wit.
Spartan debate was Yes and No:
  That settled it.
Athens, when all was vainly fought,
  Fled from the field.
Sparta brought home or else was brought
  Upon a shield.
The Attic pen was wielded well;
  The world has read.

What Lacedæmon had to tell,
His right arm said.
Something the Spartan missed, but gained
The power reserved
That lets the crown pass unobtained,
Not undeserved.

Wendell Phillips Stafford.

Thy voice is heard through rolling drums
That beat to battle where he stands;
Thy face across his fancy comes,
And gives the battle to his hands:
A moment, while the trumpets blow,
He sees his brood about thy knee;
The next, like fire he meets the foe,
And strikes him dead for thine and thee.

Song from "The Princess" **Alfred Tennyson.**

Passages such as the preceding may be given, first, simply and naturally, as is in ordinary reading, and then with greater earnestness or accentuation of the successive individual ideas. This accentuation will cause an increase in the number and length of the pauses, and especially in the primary vocal conditions. There will be more breath, greater openness of the tone, greater rhythmic pulsation in the voice.

This is excellent for developing the sense of natural rhythm in speech, the right alternation between the reception of the impression and its expression, between thinking and utterance, silence and speech, and especially between the establishment of conditions and the utterance of speech. Only rhythm will bring all the many peculiar elements of preparation and speech and release of conditions into right unity, and the determining factor is not mere will or rule but thinking.

Exercise 48. Accentuation of Co-ordinate Conditions.

Passages containing excited exclamations or representative words, such as the following from Dickens, may be rendered. The joyous and hearty giving of the "Yo ho!" should be emphasized, the co-ordinations carefully observed, and then care should be taken to have some accentuation of the preparatory actions for the following phrase.

CHRISTMAS AT FEZZIWIG'S WAREHOUSE.

"Yo ho! my boys," said Fezziwig. "No more work to-night; Christmas Eve, Dick! Christmas, Ebenezer! Let 's have the shutters up," cried old Fezziwig with a sharp clap of his hands, "before a man can say Jack Robinson. . . ."

"Hilli-ho!" cried old Fezziwig, skipping down from the high desk with wonderful agility. "Clear away, my lads, and let 's have lots of room here! Hilli-ho, Dick! Cheer up, Ebenezer!"

Clear away! There was nothing they would n't have cleared away, or could n't have cleared away, with old Fezziwig looking on. It was done in a minute. Every movable was packed off, as if it were dismissed from public life forevermore; the floor was swept and watered, the lamps were trimmed, fuel was heaped upon the fire; and the warehouse was snug and warm.

Charles Dickens.

XI. PHARYNGEAL FAULTS OF VOICE

Like all others, the methods of vocal training presented in this book will be tested by their efficiency in eliminating faults of voice.

The importance of this principle of co-ordination of all the parts of the tone passage in union with breathing is especially shown and illustrated by the fact that its mastery eliminates the common faults of voice.

Sound is simply vibration, and, since it is initiated without great labor, the least constriction or misuse of a part at once perverts the vibration. All faults of voice are associated with some constriction in the tone passage, or wrong use of some part of the vocal mechanism.

While every individual voice is peculiar to itself and no amount of training can make two alike, still the fact must be realized that there are certain conditions or qualities in nearly every voice which are perversions of nature. A hard, flat tone is unnatural. Faults are traceable to bad habits, and their eradication will not remove the personal peculiarities of a voice but will develop its individual character.

The student must make a careful study of the nature of sound and of the peculiar qualities of his own voice, that he may not mistake abnormal, constricted tones for his real voice. Failure to realize that a nasal or throaty tone is no essential part of the person's own voice will prevent correction of the fault, if not forbidding any true vocal development.

One little splinter or bad joint in the structure of a piano will affect the tone of the instrument. When an old building is torn down, a violin maker is often on hand to find timbers which have been dry for a hundred years. The texture of the wood is vitally necessary to produce richness of tone. If a mere instrument be as delicate as these illustrations indicate, what must we expect to find in the voice, which results from the vibration not of a mechanical agent but of a living organism?

The human voice is the most perfect of all instruments, and naturally the most sensitive; hence, the smallest muscle, the least displacement of any part, such as the back of the tongue or soft palate, will cause a decided perversion of the tone.

What is the best method of dealing with faults of voice? One consists in securing control of the local part whence the defect arises. This seems scientific since, as already shown, most faults are directly associated with constriction of some specific part. It must be granted that it is of great aid in training if the teacher be able to put his finger upon the constriction that occasions a false vibration.

Why, then, is this method inadequate?

Because faults of voice are the result of habit. A mere conscious control for a moment of the part constricted, granting that this is possible, is forgotten in the hurry of speech and the fault recurs.

With every normal or abnormal action of a muscle, especially of those at the base of the tongue and the pharynx or soft palate, many others are co-ordinated mysteriously in the nerve centres, and a fault cannot be adequately corrected until there is developed right co-ordination of all the parts.

To secure normal action of any part requires the ascertaining of the fundamental conditions upon which the more accidental ones depend and their establishment. For this reason, the correction of the simplest fault of voice demands a positive and radical method. No part of the tone passage is controlled specifically and individually in ordinary speech. The slightest act is intimately connected with all the parts. All these, in producing a tone, act sympathetically and almost as a unit.

What is needed is the mastery of the fundamental principle here indicated. As all pharyngeal faults are due to constriction of the tone passage, and since the first principle and exercise call for sympathetic retention of the breath and a relaxation of the whole throat, when these first exercises are completely mastered such a fault of voice is eliminated.

It will be seen from this that a defect cannot be completely eradicated negatively or by mere local treatment. Positive exercises are needed such as will develop the general co-ordination of the tone passage and the retention of the breath.

Even this is not sufficient. As already stated, the habit must be corrected. The mental action or feeling which originally caused the constriction must be removed or the cause will again operate and once more produce the effect. Faults, however, frequently remain after this has been corrected, so that its elimination is not of itself sufficient. There must also be some fundamental training.

While in ordinary voices all that is needed in the correction of faults is the mastery of the first simple exercises, occasional cases are found where long continued perversions and bad habits directly interfere with the mastery of the fundamental conditions of true tone production.

In such cases there should be a careful observation of local conditions and an indication to the student of the specific locality of the constrictions which prevent him from establishing the primary conditions.

This local attention must, however, be directly associated with the practice of some simple exercise. The only way to open the throat or remove constrictions from the tone passage is by the right management of the breath; so that a consciousness of the local conditions or constriction can be helpful only by being associated with the deeper consciousness of the foundation principle. It is easy to bring the study of the local part into sympathetic relation with the mastery of this. The consciousness, while directed to sympathetic retention of the breath and to relaxation of the tone passage, can be more specifically cognizant of the passivity of a local part. This is the bringing of the sense of relaxation in such a part into sympathetic union with the right condition of everything concerned in tone production.

The adjunctive assistance of the local study of faults is often necessary on account of a total unconsciousness of right tone conditions. The throat has so long been constricted and the action of the breathing so disconnected, that the student is wholly unaware of the lack of openness in his tone passage or of any sympathetic action between its relaxation and the retention of the breath.

It is astonishing how unconscious most men are of the peculiarities of their own voices. Many persons will resent the statement that their voices are throaty, nasal, flat, or hard. They honestly do not feel these faults but regard them as personal peculiarities. This is due to the fact that habit has displaced nature. The person has so long used perverted tones that he is unconscious of the real character of his voice. We are more aware of what we habitually are than of what we might possibly become. Habit may violate nature's primary intention; it may become so confirmed as to pervert the consciousness of our true selves; it may make us feel that the greatest unnaturalness is natural to us. Hence it is necessary in all training to make the student conscious of his possibilities, of nature's ideal intention regarding what is normal not only for the race but for himself.

The local study of faults is important in making the student conscious of his defects and revealing to him the direction in which improvement should be manifested. It is negative, however, and should always be united to the use of exercises and the positive development of the voice according to primary principles.

Mastery of these exercises and initiatory conditions frequently eliminates throatiness and nasality without bringing them directly to the attention of the student.

Faults are more or less mixed in character, and in the primary exercises for positive control of the principle they are often corrected together. In fact, the great majority of voices are simply undeveloped, and the combined throatiness, muscular constrictions, flatness, nasality, or narrowness, cannot be indicated with sufficient clearness by the teacher to make the student conscious of his most salient faults. Nor is this always necessary; positive exercises of the preceding lessons will eradicate all defects.

Where the condition of throatiness or nasality is so extreme as to hinder absolutely any true progress in producing the fundamental exercises, expedients must be adopted to reveal the condition to the student. He must learn the location of the constriction and practice his exercises in such a way as directly to co-ordinate passivity at this point with activity in his breathing.

In other cases too much attention to faults may tend to fix them or cause them to grow worse, simply because they have been emphasized in a pupil's mind.

While faults are purely negative, their disappearance is a chief sign of the mastery of the principles of the preceding lessons. Accordingly, it is well to classify them and give them some specific analysis and study.

Faults have been named by the instincts of the race, from the impression received of the overuse of certain parts; such as throatiness, which results from constriction of the throat, and nasality, some kind of a perversion of the narial vibrations.

Another class of faults is characterized by analogy to other things; hardness, for example, occurs where the tone does not seem mellow, flexible, or elastic, where an impression of harshness is received. Flatness is a common name for a certain fault, and metallic quality is so named because of the analogy of the sound to the vibration of some metallic substance rather than to the violin or some instrument associated with the vibration of a ligament.

I. THROATINESS.

One fault which students can be made to recognize easily is due to certain muscular constriction in the neighborhood of the back of the tongue. This fault is common; in fact, every untrained voice has too much muscular constriction of the tongue or the pharynx. This is especially true when the voice is called upon to perform any unusual action. Too much muscular work is introduced. The swallowing muscles become active or the back of the tongue rises on account of the fact that the heavy ones under the tongue are brought into activity.

Most men, when they make an effort to improve tone, instead of increasing the motive power double the activity at the back of the tongue and throat. This fault is simply a prevention of the free outflow of sound waves.

Exercise 49. Repose of Pharyngeal Muscles.

The presence of throatiness can be detected by the simple placing of the finger across the throat just above the Adam's apple. With the finger in this position in swallowing we can feel the muscles harden under the finger. But in making free, easy, soft tones these are relaxed. The student can experiment with himself in relaxing these parts, and give "ah." He will notice a marvelous difference in the tone produced in each case.

Usually he will need to put the forefinger of one hand across his teacher's throat and that of the other upon his own. It is necessary to make a sustained tone to use this test or expedient because any inflection causes a movement of the larynx and the student might mistake the action of these parts for the muscles connected with his pharynx. By making a sustained tone as relaxed as possible, and speaking certain words, the teacher can lead the student to realize unnatural and muscular constriction.

Another good test is to prolong "l" or "m" sympathetically and with great relaxation of the throat. The ear should be trained to detect the difference between normal and throaty qualities both in others and in oneself, but the ability to bring the sense of touch to bear as an aid to the ear is of great importance; for whereever it is possible we should bring forward more than one sense in the testing of a principle.

In work upon throatiness we find an important principle. The relaxation of unnecessarily cramped muscles can be secured only by accentuation of the primary co-ordination, activity in the middle of the body, and passivity at the throat. But by uniting the consciousness of the constriction with the fundamental activity in the middle of the body in such a way as to cause the sympathetic relaxation or elimination of this constriction we find the fundamental principle developed simultaneously with the elimination of the fault.

No feeling can be created by mere local action. There must be a fundamental principle. The whole action of the voice is a co-ordination; part is related to part. In every fault there will be found some wrong action in the mind and more or less in the whole vocal mechanism. Constriction at the throat, other things being equal, is always associated with some constriction of the breath. A fault has, if nothing more, a reflex action upon other parts. The cause of throatiness is not merely a local constriction but a misuse of other parts. Frequently it is due to lack of centrality of breathing or to labored respiratory action in the use of the voice.

This is why the management of the breath, the right establishment of co-ordination tends to correct the fault. The only case in which it does not is where there is such local habitual constriction that co-ordination is too subtle to cause the parts to respond immediately. Direct attention to the relaxation so as to secure this and then the bringing in of the normal activity or centrality of breathing will soon establish co-ordinate response.

Exercise 50. Freedom of Sub-vocal Vibration.

One of the best exercises for the consciousness and the correction of throatiness is to use the consonant element "th" in "thy," or "there" or "those." This can be practiced separately making it a continuous buzz, relaxing the back of the tongue and pharynx and allowing the tone to pass out freely. The parts can also be consciously constricted for a moment to show not only throatiness but a common fault in articulation. One of the helps to eliminate throatiness is work which will be later discussed in studying the true character of speech.

This exercise causes the tip of the tongue to be raised against the upper teeth; when there is a tendency to use also the muscles of the back of the tongue there will be a failure to localize the function of the front of the tongue in producing this element. The whole tongue will be constricted, and there will be a certain stiffness at both tip and base. Raising the tip, and keeping the back of the tongue perfectly relaxed, we can feel the natural conditions by the thumb or finger above the larynx and under the tongue while giving the tone.

The fault is brought to the consciousness of the student, his finger is placed upon the spot of the constriction, and at the same time he can practice starts by co-ordinating respiratory activity with the passivity of the throat, directing attention to the parts habitually constricted. All laboredness and wrong muscular actions can thus be eliminated from the pharynx and the tone be no longer throaty or gutteral but open, free, and resonant. We may then practice the initiation of co-ordinations, to be explained later, with this element before "ah" or "oh." Such exercises make the correction of throatiness an easy matter. Improvement will be almost immediate.

Other starts can also be practiced, such as "v" or "l" before "ah" in the same way. "L" is even a more sympathetic element than "th," and if "th" does not immediately cause a response "l" may be tried as a temporary expedient. Or "z" and "m" or any continuous voice consonant may be used.

Another helpful exercise is to look into the mouth while relaxing the tongue as much as possible. One should be able to see the pharynx between the soft palate and the tongue through an almost round opening. The space should be as great upward and downward as from side to side. The whole passage should be relaxed. The tip of the tongue should rest against the lower teeth, and then the student can make his starts with "ah."

In practicing "th" and "l" it is also well to feel the easy, sympathetic vibrations of the whole mouth, and to note that when there is constriction in the back of the tongue the sympathetic vibrations of any of the consonants such as "m" will be improved. Very sympathetic vibration in voice consonants is an essential element of their nature and its development is of fundamental importance in improving articulation.

It will be shown later that faults of tone and of articulation are often, perhaps always, found together.

Still another good exercise is to take "th" and "ah" and give many repetitions of the syllable rhythmically on one pitch. This may be practiced with different metric feet. The teacher can easily arrange some pleasing rhythmic phrase which will help to eliminate throatiness by giving alternation of activity and passivity, or of strong and weak words or syllables. This will also help to develop vocal quantity and retention of breath.

Another exercise may be found in "v." In this the tongue is completely passive. It is possibly the easiest of all the elements to eliminate constrictions from the back of the tongue, and may be used as an expedient when the student cannot produce the other elements without constriction.

Exercise 51. Freedom of Tone — I.

Give the word "thou" at the beginning of the following with the whole throat open and relaxed. Especially keep the back of the tongue relaxed in the consonant sound "th." Give the diphthong as open as possible. Repeat this word many times on a definite pitch, with an instrument if convenient. Accentuate the co-ordination of all the fundamental conditions. The whole of the second passage may be rendered with recitative preserving the feeling of admiration.

Thou deadly crater, moulded by my muse,
Cast thou thy bronze into my bowed and wounded heart,
And let my soul its vengeance to thy bronze impart.

On the cannon purchased by receipts from his public readings. — Victor Hugo.

COLERIDGE.

Thine is the mystic melody,
The far-off murmur of some dreamland sea
Lifting throughout the night,
Up to the moon's mild light,
Waves silver-lustrous, silvery-white,
That beat in rhythm on the shadowy shore,
And burst in music, and are seen no more.

George S. Hellman.

II. NASALITY.

Nasality is usually regarded as tone passing out through the nose; but this is only one aspect or kind of nasality.

Nasality, in the ordinary sense, is caused by some constriction, usually at the summit of the pharynx; as throatiness is a constriction in the lower part of the pharynx.

In all nasality there is also constriction of the tongue, so much so that some able teachers, such as Mr. William Shakespeare, believed that the trouble is wholly caused by a cramp or elevation of the back of the tongue. Of course, there will be constriction in the soft palate as well.

Its correction must consist in getting complete relaxation and a greater openness of the gateway of the voice.

There are three kinds of nasality.

The first is due simply to relaxation or weakness of the soft palate. This is so low that the tone strikes against it and must pass out through the nose. I have found this species more frequently in the south.

The second form which is frequent in most parts of the United States, is entirely different. It is caused primarily by a constriction of the back of the tongue and usually also of the pillars of the soft palate. This brings the latter somewhat downward, and cramps at the summit of the pharynx, thus perverting the normal or narial vibrations and causing a prominence of those which are abnormal or nasal. The tone is harder than in the first named kind of nasality. It is often united to a species of flatness, the next fault of the voice to be discussed.

It is the prevalence of this species of nasality, especially among Americans, that has led Mr. Shakespeare and others to consider it the only kind. Further observation will convince anyone that there are various forms caused by the different location of the limitation of the openness of the pharynx.

The third form is due to the obstructions of the nose. This is more properly called a catarrhal quality of voice. On account of mucous or other obstructions, the nasal passages are completely obstructed, and there is an elimination of the true narial vibrations.

Many have said that this is the only type of nasality; and is not due to speaking through the nose but to not doing so. This illustrates the cause of many onesided statements. Such persons have had their attention specifically called to a single species and have made their generalization from too little observation.

All three forms are due to obstructions and perversions of the resonance of the voice.

I once taught a young man who had almost entirely eliminated from his voice the narial vibrations. Practically he had no "m," "n," or "ng." He had received an idea that any vibration in the nose was wrong. The effect of his voice was exceedingly curious and abnormal, and he came to me for an examination.

It must be borne in mind that the resonance of the nasal passages is one of the richest and most important elements in the human voice. Any obstruction of this element of resonance is the most disagreeable of all perversions. The establishment of the true narial vibrations of the voice must primarily depend upon the fundamental conditions, and especially upon the relaxation of the back of the tongue and the soft palate. The free emission of the voice implies necessarily the right action of the breathing and the harmonious vibration of the whole nasal chambers.

Any imperfection in the narial vibrations demands great care in removing constrictions from the region of the soft palate, whether that fault serves to shut the soft palate too closely, relax it too much or simply to cramp it in connection with the back of the tongue.

The correction of nasality requires the awakening of the consciousness of the student to the presence and nature of the fault. Many persons with the most nasal voices are absolutely skeptical regarding them.

Exercise 52. Freedom of Narial Vibration — I.

Take the last four lines of Longfellow's "Building of the Ship." Change the word "triumphant" to "victorious." This will not break the metre and will give four lines without an "m," "n," or "ng." Give these lines as hearty and free expression as possible, and place the thumb and finger suddenly over the nose to close the nostrils. Open and close also at times while speaking the lines. If the contact of the fingers makes a difference in the tone it is nasal; if the closure makes no difference then the tone is free from nasality.

Our hearts, our hopes, are all with thee:
  Our hearts, our hopes, our prayers, our tears,
  Our faith, victorious o'er our fears,
Are all with Thee, — are all with Thee!

Longfellow.

Lift up your hearts, ye people, O be proud.
"Memorial Day" Hagedorn.

Such lines may also serve not only as an expedient to detect nasality but to discover in which elements it most predominates. Render these lines earnestly and sincerely and as naturally as possible, with the proper emotion, and note carefully, as you repeat the passage or some one line of it several times, which of the elements are most nasal. This can be done by keeping the thumb and finger upon the nostrils.

When there is no " m " or " n " the closing of the nose will make no difference in the vibration if nasality is absent. True tones, except the nasal elements, pass out through the mouth and the narial vibrations are merely sympathetic. There is no emission of breath through the nose, that is, the narial chambers act as agents of secondary vibration, while in nasal tone the vibrating breath seems to escape partially through the nasal passages.

Such an expedient brings some surprises. One is that the vowels are not so nasal as the voice consonants. It will also be found that the same elements are not equally nasal in two voices which appear to have the same amount of nasality. We find " r," " z," " th " in " thy," and " l " most apt to be nasal of all the elements in human speech.

This indicates a remedy in technical exercises. Practice starts with these voice consonants. Accentuate the openness and freedom of the passages and carefully observe that there is no nasality in the initiatory consonants; a radical method is then found for the technical correction of nasality. The elements that are most nasal can receive most corrective practice.

Exercise 53. Freedom of Narial Vibration — II.

The nature of nasality can be observed in another way from that already described. Take the letter " m " and prolong it, first relaxing the whole tone passage as much as possible.

Allow the lips alone to be in juxtaposition, the tongue limp, the whole interior of the mouth relaxed, and note the quality of the "m." Then cramp the tongue and soft palate, and note the change. Here we meet a most important aspect of nasality. After all "m," "n," or "ng," may be nasal in a worse sense than any other element. These can be narial in the true sense, or nasal in a bad sense, and the cause of the latter is constriction.

For the correction of any form of nasality pronounce words with "m," "n," or "ng," sympathetically relaxing the throat and nose and allowing a continuous rich vibration. Be sure that there is relaxation and endeavor to get all the constrictions out of the soft palate. The nasal elements, however frequently the fact is overlooked, must be practiced for the true correction of nasality.

Give "n" or "m" before or after a vowel, and note that there is a free, natural, rich vibration, which changes immediately at the beginning or end of the vowel.

Exercise 54. Flexibility of Soft Palate.

A helpful exercise in correcting many forms of nasality is the one already named "agility of the soft palate." Not only can this be practiced with the vowel "ah," but with all other vowels. In making any vowel, the soft palate and the back of the tongue should be far apart. We should test our power to give different vowels with the back of the tongue relaxed and low, and the soft palate high. Now, in the consonant element "ng" (which, of course, is neither "n" or "g," but a simple and distinct element, as definite as "n" is from "m") the back of the tongue and the soft palate are brought together. By following "ng" with any vowel, and making a quick jump from one to the other, we can secure agility of the back of the tongue and the soft palate, and also test the openness of all the vowels and their freedom from nasality. By keeping the front of the tongue, the jaw, and the mouth relaxed, one may develop by this practice an elemental action of the back of the tongue and of the soft palate. This produces agility in passing from a narial vibration to a vibration of the mouth, that is, from a nasal consonant so called, to a vowel. This quick action is really necessary, and lack of it is one of the most important of all the technical causes of nasality, and the student can make no progress unless he recognizes it for himself.

The foregoing exercises are helpful in the development of openness of the voice as well as in correcting nasality.

III. FLATNESS OR HARDNESS.

Flatness, as a fault of voice, is caused chiefly by constriction of the pillars of the soft palate. In throatiness, the central portion of the pharynx or the parts opposite the base at the back of the tongue are cramped. In nasality the summit of the pharynx or the parts acting in unison with the upward movements of the back of the tongue especially are cramped. But in flatness, the constrictions are located chiefly at the sides of the tone passage, especially in the posterior pillars of the soft palate.

The cause of this fault is some habitually unemotional attitude of the mind. It is the primary element in an unsympathetic use of the voice. One of the most important forms in all such uses of the voice is the "school-room tone" of children. It is common among teachers, whereever we find thinking without feeling or a mechanical forcing of the voice, such as that of one who is not interested in his work but who teaches from a sense of duty or as a business, or who seems to feel it necessary to drive ideas into what he considers "hard" heads.

The defect, however, is found in all walks of life and its nature and correction, with the eradication of its causes, are important. It is a disagreeable quality of voice and a great hindrance to success.

It is possibly synonymous with hardness. At any rate, they are so similar that it is hardly necessary to seek the distinction between them. Hardness may be due to a narrowness of the tone passage which scarcely seems to extend throughout the whole passage, but the constriction will be found, as stated, in nearly every case, in the pillars of the soft palate. Hardness is, from the point of view of sound, the elimination of the sympathetic vibrations. Hard tones always lack resonance. In fact, resonance may be perverted or eliminated so completely from the tone that the person becomes incapable of expressing any tenderness or love.

How can this fault be eradicated? It is perhaps more psychic in its character than either nasality or throatiness. To correct it, the student's imagination and sympathy must be awakened; he needs to realize the importance of point of view. He should develop the power to respond sympathetically to every successive situation and must train the primary actions of the dramatic instinct. He should not adopt a merely neutral attitude toward truth but sympathetically identify himself with all characters and events and receive a genuine impression from every idea.

What technical work will be most effective in the correction of hardness or flatness?

Exercises of sympathetic and delicate nature will cause not only the relaxation of the tone passage but openness as well.

The student, when practicing such an exercise to correct flatness or hardness, must attend to the action of his tone passage. He should relax the pillars of the soft palate and the back of the tongue. Constriction at these pillars will be necessarily associated with constriction in the tongue and pharynx.

The practice of extreme transitions in feeling will also prove helpful. In this case the sudden change of emotion demands the relaxation of the texture of the muscles of the whole body, and especially of the throat, and in flatness and hardness such a condition is absolutely necessary.

It is also well to follow technical exercises which secure direct realization, as it tests the subconscious possessions of the conditions and the mastery of the responses.

The greatest reliance, however, must be placed on the sympathetic and persevering practice of lyrics expressing admiration of nature, love of home, or some form of tenderness.

It will be found that flatness is nearly always associated with the second kind of nasality. It is often found with throatiness also. These are all due to constriction of the tone passage, and will be found more or less combined with one another. They must be corrected by a thorough mastery of the preparatory actions and conditions for speech. Their correction must be radical. The study of local conditions can only help this treatment which must not be merely physical. The habits of mind which have caused the faults must be eliminated.

Other defects may be observed which are caused by constriction of the pharynx. Persons trying to be gentle in speech sometimes lessen the tone passage and speak with small vowel chambers. The effect is to diminish the openness and richness of vibration and to lose their true vocal force.

In other cases there is a muscular constriction through the whole pharynx so that it is difficult to say whether the voice is throaty, nasal, or flat. The fault is rather muscular than otherwise.

In any case, the whole pharynx must be relaxed and open in union with the breathing. Step by step, in the practice of the starts, the student must endeavor to get his tone passage more and more open, a greater and greater amount of breath being retained in the lungs until this retention is not only habitual, but developed and accentuated so as to become part of the preparatory response in vivid and in passionate thinking.

In the practice of all exclamations, starts, or in the rendering of lyrics, in fact, in any exercise for the correction of hardness and flatness, particular attention should be paid to the easy and sympathetic retention of a great amount of breath. In many cases, hardness or narrowness of tone will be caused by introducing effort to send the voice to a distance without taking a sufficient amount of breath. This unusual effort going to the throat narrows and constricts the whole passage.

It cannot be too strongly impressed upon us that even the primary method of opening the tone passage eliminates all constrictions and faults associated with the misuse of the pharynx but depends upon the easy, harmonious retention of a large amount of breath. Only by this means can the co-ordinate conditions be established.

Exercise 55. Respiratory and Pharyngeal Co-ordinations — V.

Render with great tenderness Tennyson's "Sweet and Low." Accentuate the co-ordination of the preparatory actions and breathing or the primary actions and conditions of the diaphragm, — but especially the passivity of the pharynx, endeavoring to make the vibration as soft and rich as possible. Repeat some of the short phrases many times, always under the conditions of the primary co-ordination of the tone until an harmonious, relaxed openness of the whole tone passage is thoroughly established.

> Sweet and low, sweet and low, wind of the western sea,
> Low, low, breathe and blow, wind of the western sea!
> Over the rolling waters go,
> Come from the dying moon and blow,
> Blow him again to me;
> While my little one, while my pretty one, sleeps.

Sleep and rest, sleep and rest, father will come to thee soon;
Rest, rest on mother's breast, father will come to thee soon;
Father will come to his babe in the nest,
Silver sails all out of the west
  Under the silver moon:
Sleep, my little one, sleep, my pretty one, sleep.

Tennyson.

Give the word "life" at the beginning of the following lines with as much openness and relaxation of the tone passage as possible. Let the vibrations be free from any throatiness on the one hand and nasality on the other. Prolong the "l" and the vowel freely; test the absence of constrictions both at the base of the tongue and in the nose and render the whole poem with free vibrations.

  Life! I know not what thou art,
But know that thou and I must part;
And when, or how, or where we met
I own to me 's a secret yet. . . .
Life! we 've been long together,
Through pleasant and through cloudy weather;
  'T is hard to part when friends are dear, —
   Perhaps 't will cost a sigh, a tear;
   Then steal away, give little warning,
     Choose thine own time;
Say not Good-Night, — but in some brighter clime
       Bid me Good Morning.

"Life" Anna Letitia Barbauld.

Many exclamatory passages occurring in operas where there is a sudden outcry of surprise or extreme feeling can be found for such illustrations. The principle of surprise in song, especially in opera, can be employed as a means of showing the student the naturalness of his exercise, and also of connecting conditions of tone with his consciousness. The matter is of real importance. Students of singing sometimes struggle for years to get hold of some principle, and such phrases will help them more quickly to realize the laws of their art.

Rise, rise, O bird, mount, mount and sing.

Exercise 56. Freedom of Tone — II.

Render some passage full of animation and feeling, such as the following, accentuating the fundamental conditions, making the tone as roundly and as openly as possible. Let all the vowels be large and full, give fervor and resonance to the voice, but keep the whole throat so relaxed, so open, that there will be no tendency in any element to pass out through the nose.

BIRD RAPTURES.

The sunrise wakes the lark to sing,
  The moonrise wakes the nightingale.
Come darkness, moonrise, everything
  That is so silent, sweet and pale:
  Come, so ye wake the nightingale.

Make haste to mount, thou wistful moon,
  Make haste to wake the nightingale:
Let silence set the world in tune
  To harken to that worldless tale
  Which warbles from the nightingale.

O herald skylark, stay thy flight
  One moment, for a nightingale
Floods us with sorrow and delight.
  To-morrow thou shalt hoist the sail;
  Leave us to-night the nightingale.

Christina Georgina Rossetti.

GENIUS.

Far out at sea — the sun was high, while veer'd the wind, and flapp'd the sail — we saw a snow-white butterfly dancing before the fitful gale, far out at sea! The little wanderer, who had lost his way, of danger nothing knew; settled awhile upon the mast, then flutter'd o'er the waters blue, far out at sea. Above, there gleam'd the boundless sky; beneath, the boundless ocean sheen; between them danced the butterfly, the spirit-life of this vast scene, far out at sea. The tiny soul then soar'd away, seeking the clouds on fragile wings, lur'd by the brighter, purer ray which hope's ecstatic morning brings, far out at sea. Away he sped with shimmering glee! Scarce seen — now lost — yet onward borne! Night comes! — with wind and rain — and he no more will dance before the Morn, far out at sea. He dies unlike his mates, I ween; perhaps not sooner, or worse cross'd; and he hath felt, thought, known, and seen a larger life and hope — though lost far out at sea.

R. H. Horne.

A SEA LYRIC.

There is no music that man has heard
  Like the voice of the minstrel sea;
Whose major and minor chords are fraught
  With infinite mystery. . . .

There is no passion that man has sung,
  Like the love of the deep-souled sea,
Whose tide responds to the moon's soft light
  With marvellous melody. . . .

There is no sorrow that man has known
  Like the grief of the wordless main,
Whose Titan bosom forever throbs
  With an untranslated pain —

For the sea is a harp, and the winds of God
  Play over His rhythmic breast,
And bear on the sweep of their mighty wings
  The song of a vast unrest.

William Hamilton Hayne.

THE WHITE BLOSSOM'S OFF THE BOG.

The white blossom 's off the bog and the leaves are off the trees,
And the singing birds have scattered across the stormy seas:
  And oh! 't is winter, wild, wild winter!
With the lonesome wind sighing for ever through the trees.

How green the leaves were springing! how glad the birds were singing!
When I rested in the meadow with my head on Patrick's knees!
  And oh! 't was spring-time, sweet, sweet spring-time!
With the daisies all dancing before in the breeze.

With the spring the fresh leaves they 'll laugh upon the trees,
And the birds they 'll flutter back with their songs across the seas,
But I 'll never rest again with my head on Patrick's knees;
  And for me 't will be winter, all the year winter,
With the lonesome wind sighing for ever through the trees.

Alfred Perceval Graves.

IV

CO-ORDINATION OF DIAPHRAGM AND VOCAL BANDS

XII. PRIMARY VIBRATION

Having considered some general phases of vocal training and discussed some of the most observable phenomena of the voice, we are now prepared to study more definitely the nature of tone production, and to adopt still more definite exercises for its development.

The next step is more directly concerned with voice production, and it may seem to some that this is the proper place to begin all our studies, but several constrictions must first be removed. Hence, co-ordination between breathing and the pharynx must be secured before we can secure the proper co-ordination between breathing and the vocal bands. At any rate, our method has led us first to note the characteristics of the vocal organs as a whole, and the general conditions of tone production. We have observed the right action of the breathing and the normal motive power of the voice, and have learned how to remove constrictions from the tone passage.

We can now enter upon more positive study of the nature of voice and develop what some will consider more fundamental, the initiation of sound waves, or what we will here term the primary vibrations of those initiated by the vocal bands, to distinguish them from the secondary vibrations or overtones and the sympathetic vibrations which strengthen both the primary ones and the overtones, but which come from the chest chambers, from those in the head, and in fact from the whole body. To understand the nature of voice it is necessary to consider a wider aspect of the subject.

I. NATURE OF SOUND.

When a drum-head is struck it is made to quiver or vibrate, and the surrounding air is also set a-trembling or put into a series of vibrations. Each particle touching the next one moves that, which in turn moves the next, and so on, until the commotion is carried outward in a series of what are called waves.

Sound may be regarded objectively, that is, as a mere series of sound waves with a certain length, amplitude and shape. We may also consider these as coming in contact with the auditory nerve so that the sound is heard. There are thus two aspects of all sound; one, the physical phenomena of vibration, and the other what is realized by the sense of hearing.

Sound may be carried through the atmosphere or any gas or through liquids or solids. We can put our ear to a railroad iron and hear a locomotive much farther away than we can through the air. A man under water will hear with great distinctness the striking of two bodies which are also under water. When a sounding body is placed in contact with the skull, and the man, though partially deaf, hears it, then it is not his auditory nerve that is at fault but the means of communicating the vibrations to this nerve.

Secondary vibrations may be divided into "consonance" and "resonance." If one end of a violin string be attached to the ceiling and the other to a weight, when we touch the string we hear a slight sound; but when the string is given the same amount of tension on the violin the sound is much louder.

The reason for this is because in the first case only a small amount of air is set into vibration, but in the latter a much larger surface of air which vibrates simultaneously. The parts aside from the string are said to vibrate in "consonance." Consonance is the sympathetic vibration of different objects in direct contact with each other. In the violin the bridge connects the vibration of the string directly with the consonant body.

In resonance, however, there is no contact between the sounding body and that which increases its vibration. A tuning fork for example, may be struck; then we can hold it over a bottle into which we gradually pour water. At a certain point the sound will be greatly augmented, but as we pour in more water it will again be lessened. At the point when the pitch of the chamber of the bottle corresponds with the pitch of the tuning fork there will be sympathetic vibration or resonance. If the tuning fork be held successively in the mouth of several organ pipes the one which corresponds in pitch with the tuning fork will be made to sound.

The term "resonance," however, is used in a general sense as inclusive of all secondary vibrations. A resonant instrument or tone is one in which the overtones and the sympathetic vibrations, whether due to consonance or reverberation, are especially prominent.

Air propagates sound at the freezing point about 1090 feet per second, and this rate increases gradually as the temperature rises. The velocity of sound also increases in proportion to the elasticity of the medium. In water it is more than four times as rapid as in the air; in pine wood with the fibre it is ten times quicker than in air, and through iron more than seventeen times as fast.

It is found that the human ear can detect vibrations that are as frequent as twenty-four in a second, but none lower than this; and if they exceed thirty or forty thousand per second they cease to produce any sensation upon the ear. Voice is sound produced by the vocal bands of living animals, especially by human beings.

Every musical instrument demands not only a part or parts which furnish the motive power but an agent for the initiation of vibration. In the violin, the strings perform this function; in the flute or pipe organ, the length of the tube; in the reed organ, the reeds; in the human voice the vocal bands produce the fundamental pulsation.

Sound is generally divided into music and noise. A tone is musical in proportion as there are a continuous series of regular vibrations. Sound is noise when produced by some single impulse, as an electric shock, or some explosion, or by irregular impulses causing irregular vibrations. These facts seem meagre, but are a summary of what little we know on the subject.

II. THE VIBRATIONAL FUNCTION OF THE VOCAL BANDS.

What is the primary act of the vocal mechanism in initiating vibrations fundamentally necessary to tone?

In the voice box we have two ligaments meeting in such a way as to form a narrow passage, called the glottis, through which air passes causing vibration. These ligaments are often called vocal chords or bands. They are neither; but are two ligaments which meet like lips or pads. They are protected by a cartilaginous box called the larynx, or the voice box, with muscles attaching these cartilages to each other and to the vocal bands in such a way that the bands are adjusted into a position for vibration when a small current of air passes between them or, as some think, cause this air stream to vibrate. These muscles also change the length of the chords causing change in pitch. Such are the specific functions of the vocal bands.

We encounter here what seems an elemental question, but it is one which has caused a great deal of discussion. Is the voice a reed or a wind instrument? Many scientists, such as Tyndall, for example, speak of the voice as a "reed instrument" as if it were a wholly settled question. But it is not. There are some French authorities who hold that the voice is a "wind instrument." This question, though curious and interesting, is of little practical value in training the voice. It is enough to know that without this primary vibration, whether coming from the bands or from the air current itself, there would be no voice, and that in proportion to the definiteness with which the vocal bands discharge their function will the primary vibrations of the voice be normal and pleasant. Other things being equal, correct action of the vocal bands must be secured indirectly; that is to say, we must gain more power over the mechanism in the voice box by controlling the column of air rather than by directing the will to the vocal bands themselves. We can regulate this column by the right action of the respiratory muscles and the vocal bands will respond. We discover here another mysterious co-ordination. While the two things must be done together, nature provides in this case a co-ordinate action, the will being centred upon one part, and the other responding by a mysterious correlation.

All the parts of the vocal mechanism when normal act sympathetically and by this principle of co-ordination. This is the basis of the method which I have discovered and found adequate in training the voice. These co-ordinations may be upset from various causes, producing stammering, stuttering, and a long train of impediments or faults. When they are restored and rightly developed the voice is established, and by progressively exercising them the highest possibilities of the voice will be attained.

There are many conditions which show the intimate relation existing between the vocal bands and the diaphragm.

In ordinary breathing the vocal bands move whether voice is being produced or not. Whenever breath is taken they open; when it is given out they approach each other; if the lungs become nearly exhausted they tend to close more forcibly. This shows the intimacy of the relationship between the vocal bands and breathing. The additional exercises necessary in the development of normal vibration constitute an advanced means for developing control of the breath. That is to say, by the method adopted in this book, we begin upon whatever is fundamental and proceed in such a way that each successive exercise adds something to the preceding, while at the same time it exercises still more the initial step and naturally prepares for what is to follow. In other words, each successive exercise implies what precedes and furnishes a basis for what follows.

III. PURITY OF TONE.

The characteristics of the right vibration by the vocal bands may be summarized under the name of purity of tone. Purity is the emphasis of the primary elements of anything. In general, it means unmixed. Water that is pure is free from foreign elements, and is more capable of discharging any true function of water than that which is impure. Pure gold contains no alloy. A pure color is unmixed with other colors. Ruskin has called purity the symbol of power.

As anything is pure in proportion to the accentuation of its fundamental elements, so is sound pure in proportion to the definiteness or regularity of the vibrations. To develop purity it is necessary to eliminate false vibrations and to establish those primary conditions that make for normal ones.

Purity is a positive quality. Ease and freedom, important as they are, are general characteristics. Ease implies the elimination of unnecessary effort and the normal action of the parts. Freedom means absence of all constriction and the emission of tone through an open passage. Purity implies the elimination of all huskiness, and also the accentuation of the fundamental element of tone itself.

All the steps so far undertaken have tended indirectly to establish purity. They are necessary before anything can be done toward its development; for this quality, as we have seen, comprises a definite accentuation of all the primary conditions.

In developing control of the breath and freedom of the tone passage we have met with certain co-ordinations, one of which was necessary to the opening of this passage. We must now consider another of these. In endeavoring to establish the purity of tone and the right functioning of the vocal bands in initiating and sustaining vibrations we discover that these bands must be brought into indirect response to the right retention and management of the breath. We do not entirely control them by the will. There is a mysterious nervous union of the diaphragm and the parts in the interior of the voice box. A positive step now to be taken in the development of the voice is to secure proper sympathetic retention of the breath with a co-ordinate response of the vocal bands.

This can only be brought about by careful study and practice. We have taken an important step when we discover that the sympathetic activity in the middle of the body, — that is, right retention of breath, — not only causes the proper passive and open conditions in the pharynx, but also brings the vocal bands into right relationship for true vibration in the production of tone.

IV. ECONOMY OF BREATH.

A careful study of tone reveals the fact that it does not require great labor to establish normal vibrations. When there is too much effort noise is the result. Tone is pleasant in proportion to the economy of the breath used to initiate the vibration. In the voice, especially, all huskiness or lack of purity of the primary vibrations is associated with waste of breath. Breathing must not only be centred but we must carefully attend to the sympathetic and elastic retention of the breath.

In developing this retental action it is first necessary to become conscious of the dual actions of breathing in making tone. Of the breath taken into the lungs in preparation for tone, by far the larger part is retained as a kind of sustained condition of activity during tone production, while a small portion is used to pass between the vocal bands and initiate the vibration.

In producing tone the student can direct his consciousness either to the passive conditions resulting from the right reserve of the breath or to the small amount of breath released. Usually students think too much of the active outgoing breath and fail to realize the great importance of that which is held in passive, sympathetic reserve.

Various sensations have been suggested to students to co-ordinate this marvelous complexity in the action of the diaphragm. One teacher in Paris, with whom I studied, taught that during the making of tone we should have a sense of " sinking " in the middle of the body. Of course we can explain this by the fact that the breath reserved acts in opposition to that given up or actively controlled in a kind of column to pass between the vocal bands. The breath retained forms the drum; the small amount passed through the vocal bands is analagous to the stick of the drum that initiates the sound and brings the whole instrument into vibration. The full active chest forms the bell; the small amount given up, the hammer that initiates the sound. The breath reserved acts as the violin; the vocal bands are the strings and the small stream of expelled breath corresponds to the bow.

My old maestro the elder François Lamperti, was called a " shyster " by one who did not understand what he meant because he taught that in giving out tone we should have the sensation of drinking.

Lamperti never explained this. Some people thought he meant to make a tone as if taking in the breath rather than giving it out. Even with this view of it students were led to retain or economize the breath while making tone, especially at its initiation. In my own case I have found this sensation connected not only with the sympathetic or elastic retention of the breath but with a simultaneous feeling of openness in the throat. It has been far more helpful to me than the sensation of sinking which was purely local in the middle of the body, while in this way we may unconsciously secure something of co-ordination.

Both of these sensations are founded upon the fact that in making tone much breath is retained in the lungs. In the teaching of nearly all of the great masters there has always been some step, often a simple expedient such as these, to awaken in the student just the right action that will retain the breath without cramping it in the lungs, but allowing simultaneously with the retention an easy control over the small emission which makes the tone.

Another of my teachers taught that when the student made tone properly he should feel as if it flowed over the whole body.

Since I have become better acquainted with the fundamental principles of tone production, and especially after discovering the co-ordination between the retaining of the breath and the opening of the tone passage, I have felt that this was a realization of the sense of sympathetic expansion throughout the body which is a part of the preparatory actions in speech. In fact, it is the co-ordination of the emotional condition with the sympathetic expansion of the whole body as well as the retaining of the breath.

A good singer, if he will think of it, does feel a sense of vibration over the whole body. This condition is established by the sympathetic diffusion of emotion which modifies even the texture of the muscles of the whole body, and, so to speak, brings it into tune with the voice. It is a great help to feel this sympathetic expansion of the body simultaneously with the sympathetically retained breath and the opening of the tone passage. Anyone can see that many of these so-called and often much sneered at sensations are really intimations in the experience of great teachers of the real fundamental principles of co-ordination. Their paradoxical suggestions are founded upon truths which have been discovered in experience. Though they are one-sided they have often aroused the instinct of co-ordination. Possibly we might say that in every case where a voice has been successfully trained they have developed unconsciously the co-ordinations bringing the parts into sympathetic unity, thus establishing right conditions for tone.

The force used in establishing the retental conditions in tone production always transcends the active expenditure of energy. The drum must be larger than the stick, the bell than its clapper, the violin than the bow.

In the development of proper vibration, accordingly, we must not only economize the breath passed through the vocal bands, but increase the amount retained. We must also increase and extend the delicacy and harmonious expansion causing this retention through the whole diaphragm and respiratory muscles. In proportion as the passive conditions are free, sympathetic, and harmonious, transcending the expenditure for initiating the vibration, will the tone be pure and resonant.

This sympathetic retention of breath in the lungs during the emission of tone is the most conscious and directly voluntary element. It initiates the vibratory condition, and hence demands first attention in developing primary vibrations. The retention must first be easy and harmonious; its increase must be developed.

There are many reasons for giving attention to the action of the muscles in reserving breath rather than to the actions or parts which are concerned in expelling it.

For example, it is by reserving breath that the tone passage is opened. Again, the retention of breath establishes conditions favorable to resonance. Again, it is the reserving of a greater amount of breath that is the means by which the tone is supported, giving strength and power to the voice. The economy of breath depends upon its reserve. It is this which makes the tone purer and brings it under control. The chief co-ordinations are associated with the retention of breath. It is through the right retention of the breath that the vocal bands are properly adjusted and made to discharge their right function.

We meet here with certain facts needing careful study. We can make tone with almost any amount of breath in the lungs. Many persons speak with simply the average amount of breath in the lungs. In fact, as they must stop life breathing to produce tone they necessarily speak with less breath than usual. This is the cause of weariness and many evils. Persons in society, teachers, and others who try to speak gently and tenderly are often nervous and exhausted after speaking on account of lack of reserved breath.

The right time for producing good tone is with the reserved amount of air above the normal. By practice the amount of this retained breath can be greatly increased. One step is to stimulate and exercise consciously the inspiratory muscles.

One exercise for the education of these muscles is the simple prolonging of tone. In the practice of this the student must be very careful not to prolong his tone beyond the point of absolute comfort. It is always injurious to make tone with the breath below the normal. The prolonging of tone must be especially used to detect any such practice, that is, the prolonging of tone can test not only the amount of breath in the lungs but especially its economy or the ability of the student to make tone between a full breath and the point when the breath passes below the point of ease.

Exercise 57. Education of the Inspiratory Muscles.

A special exercise which I have found very helpful is to take some simple, flowing passage, such as the following, and taking a full breath, give it upon one pitch of an instrument in a continuous stream. Be sure to articulate every word carefully, to preserve the proper quantity of successive syllables, and to avoid all waste of breath, especially in consonants where the tendency will be greatest. This exercise will be found an excellent one not only for the education of these muscles but for the development of articulation.

THE FLIGHT OF TIME.

Faintly flow, thou falling river,
  Like a dream that dies away;
Down to ocean gliding ever,
  Keep thy calm unruffled way:
Time, with such a silent motion,
  Floats along on wings of air,
To Eternity's dark ocean,
  Burying all its treasures there.

Roses bloom, and then they wither,
  Cheeks are bright, then fade and die,
Shapes of light are wafted hither,
  Then, like visions hurry by:
Quick as clouds at evening driven
  O'er the many colored west,
Years are bearing us to heaven,
  Home of happiness and rest.

J. G. Percival.

Give in simple recitative, upon one key, several delicate lines. The advantage of this recitative over prolonging a vowel is that we find, on account of the consonants in the words, a greater tendency to waste breath. By timing one's self, and giving the words with true vocal quantity and speech touch, we secure a capital exercise for the economy of breath and also for quantity and true speech vibration.

Another exercise is found in the crescendo and diminuendo. This has been used for years for the control of the breath, and it aids not only the pressure of the breath but in securing the modulation of control over the voice.

Exercise 58. Gradation of Conditions.

Begin a tone as delicately as possible with the least expenditure of force, and gradually increase its volume, reserving and economizing the breath all the time, but by degrees allowing more active tension and volume. The exercise may also be practiced by slowly increasing, then gradually diminishing, the tone. In the diminuendo there will be a great temptation to collapse. Mastery of the exercise requires perseverance. It is a wonderful help to secure control of the motive power. The aim should not be to make a loud tone but to begin with the most delicate one, never increasing its volume beyond about one-half of the possibility, the primary object being to secure control of the delicate vibration and of the sympathetic retention and management of the breath.

The importance of the breath is seen not only in the fact that activity in the respiratory mechanism is necessary to secure right passivity in the throat, but that there is also a co-ordination between right retention of the breath and right vibration of the vocal bands. Without properly economizing and retaining breath pure vibration in the vocal bands is impossible.

XIII. THE INITIATION OF VIBRATION

The starting of the vibration is important in all musical instruments. There is always, for example, more or less noise associated with the beginning of tone. The more skillful the player the more delicate is the " touch." Note the violin, for example; a good player awakens vibration instantly. There is hardly any suggestion of the stroke. The same is true of a performer on the piano. With all instruments, however, there is a certain click or noise at the initiation of the vibration, which is more or less foreign to the sound; even an organ pipe must have " time to breathe." One charm of the æolian harp consists in the fact that the vibrations begin with regularity at once. There is no initiatory stroke or noise: the music simply begins.

A musical instrument has been invented called the choralcello, in which the strings of the piano are made to vibrate by electricity without any actual contact of the hammer or any foreign substance. The effect is astonishing. The tone is perfectly pure at the start. It seems impossible that such tones could be brought from the strings of a piano. The latter may be played upon in the ordinary way and at the same time be furnishing the choralcello notes. The sound of this instrument is more like the pipe organ than that of any other instrument, but it surpasses even this in purity and richness of vibration.

The inventor thinks that his instrument makes a synthetic tone, that is, one which is as rich in overtones as is possible; but this is to be doubted. He forgets that there are practically no limits in shaping the sound waves. Doubtless, too, he overlooks the sympathetic vibrations as well as the direct production of the overtones. The combination of many instruments together brings a polyphonous effect to which there is hardly any limit. The instrument, however, is marvelous, and especially interesting to all students of sound.

The centre of all difficulties in securing the primary conditions of voice and establishing right vibrations and all normal qualities is found at the beginning of the tone, for it is here that a tone has the poorest vibration. At this point also there is greater liability to slight the preparatory actions or conditions.

Accordingly, the first point for the study and development of the vibrations of the voice must concern the right initiation of tone. The vocal bands meet in opposition, and are set in vibration by a small amount of breath passing between them.

In starting tone we may distinguish three different actions. First, the vocal bands may come together after the breath is started. This action wastes the breath and makes considerable noise. It is an almost universal fault. Most people when they start a tone, though they may have the lungs full of breath, lose so much at the initiation that they lack any vocal power. Second, the vocal bands may come together and completely shut before the breath starts, the breath being thrown against them with such force that they are separated into their tone positions. This makes a click in the throat which anyone can hear by simply holding his breath and letting it go quickly, or making tone in the same way. The third method brings the vocal bands together at the exact instant when the breath column starts. We see at once that the last is the only one that acts in accordance with the principle of co-ordination.

The first is the common fault; the second is the artificial condition introduced for the correction of this.

Rush and many since his day have contended for the "shock of the glottis"; but it is unpleasant and makes a noise. This is not the worst, for it has irritated many delicate throats. It has never been adopted by any musician except Garcia himself, who invented it. No one can sing even a staccato passage with this action. That which more than anything else shows us the error of this method is the principle of co-ordination. It is as much a fault for the vocal bands to come together before the start of the tone as to be adjusted too slowly or after the initiation of vibration.

With the mastery of this co-ordinate initiation of tone the voice at once begins to improve; the most delicate throat is never irritated. Innumerable arguments can be brought forward to prove that it is in accordance with nature's intention; that it is the only musical method of initiating tone. It meets all the requirements of commonsense as well as the scientific principles of the coordinate conditions found in the study of the voice.

This action, accordingly, is the fundamental one to be developed in voice training. The right action of the vocal bands is necessarily connected with that of the breath. We find here a new co-ordination, elastic control or retention or response of the breath in the middle of the body and the simultaneous action of the vocal bands.

The false start, the so-called "shock of the glottis," will be a hindrance rather than a help. The only good that can result from it is that students often find the true action at the initiation of the tone unconsciously or involuntarily; but the direct effect of the exercise in nearly all cases is injurious.

The problem of the training of the voice, whether for speech or for song, must be to make the tone less noisy and more pure, that is, to make the vibrations regular, without jerks or angles, but sympathetically free.

As in all musical instruments, noise is especially manifest in the voice at the initiation of tone. If the vibration can be started with exactly the same amount of force, without chaotic movements, constrictions, or unnecessary jerks the tone will be purer and more musical, consequently more pleasing to the ear and more capable of being modulated by thought and feeling. To those who regard music as the result of a succession of sound waves of the same length, all speech is noise; but, as a matter of fact, it may be musical or noisy. A sharper distinction must be found.

A musical note, — that is, a tone resulting from a succession of vibrations of exactly the same length, — will, as a rule, be more regular than an inflexion or a tone in which the length of the sound waves is continually changing. Even an inflexion, however, may change the sound waves by regular gradation, and the pleasure of a charming voice in speech consists in the absence of noise, in the regularity of the vibrations, and the regularity in the changes of the length of the sound waves.

What exercise can be adopted that will best establish and develop this co-ordination?

If the principles already explained are true then it would seem that there should be some exercise just at the initiation of tone. Garcia recognized the points of weakness in tone, but he did not arrange a true exercise to correct the waste of breath at the beginning of the tone in his "shock of the glottis." No true teacher has accepted it.

I. INITIATION OF TONE.

Exercise 59. Initiation of Tone — I.

The best method I have found for the initiation of vibration, especially in song, was the exercise adopted by the elder Lamperti, "starting tone." He always used the syllable "lah." He gave few explanations, except that the student should stand upon the forward foot, and with a smile upon his face should make a short initiation of the tone and stop.

He depended chiefly upon what has already been explained (p. 175) as the "sensation of drinking." This must not be accepted literally, either as the coolness of the throat in taking water or making tone by breathing in the wrong way. It is a paradoxical statement which endeavors to lead the student by thinking of these sensations to retain the breath sympathetically, and at the same time to open the throat. The sensation in some way enables him, even after months of work, elastically to retain the breath while at the same time allowing a small portion actively to pass out between the vocal bands establishing the tone.

When this start is given properly there is no click in the glottis. The tone begins at once, almost like the æolian harp, without noise, and the conditions are established immediately before the tone.

The student who works upon this exercise will discover that he cannot inhale air and stop a while, retaining it, and then start the tone. He must establish conditions immediately before making tone. The tone is a kind of recoil of the breath, a certain reflex action immediately succeeding the vocal conditions. Strange as it may seem, the conditions of voice cannot be held properly except while we are producing tone. The student must not try to do it, because when we are making tone we are interfering with life breathing, and this is practically the only interference with this that is permitted. We are so constituted that when we are not making tone the life conditions immediately assert themselves and must do so; sustain tone conditions without producing voice is injurious and fights against life breathing. The taking of breath for tone is a part of the tone as much as the lifting of a hammer is part of the stroke. Tone cannot be made well without the preliminary sympathetic expansion and reception of extra breath which establish the conditions, and the immediate beginning of tone. Right preparatory actions are fundamentally necessary in establishing ease and power in the use of the voice.

Lamperti thought the letter "l" before "ah" helped by giving a liquid and sympathetic consonant action in the mouth simultaneously with the action of the vocal bands, that the limpness of the tongue in a very open "l" aided in some way the conditions for voice.

Many of his pupils, however, have used "ah" alone, bringing the consciousness directly to bear upon the simultaneous action of breath and the vocal bands.

I myself have always secured better and quicker results without the "l," except in cases where there had been a great deal of constriction and practice of the false "shock of the glottis," when the letter "l" seemed to aid in removing the cramp.

The principle involved is more important than the syllable. Some students can make one vowel better than another, and even some consonants better than "l"; but the principle is the same. What is needed is a sympathetic co-ordination of the right activity in the middle of the body with the bringing of the vocal bands into position.

The vocal bands, it must be noted, are not brought together and then separated, as was taught by believers in the "shock of the glottis." Their true actions in producing tone come directly from the reposeful condition into position. These bands should be in perfect repose until the instant they come into position for vibration. If made to close the passage completely only noise can result. The action must be free, spontaneous and easy. From the first there must be an elimination of all muscular action, of all clicks and noise. In accordance with the principle governing the arrangement of exercises, we find the leading ones, or those which accentuate the fundamental principles, always furnish practice for all preceding steps. Accordingly, in the practice of initiation of tone the relaxation of the whole pharynx must also be observed. Some teachers may prefer to begin with initiation of tone and use practically the same exercises for all the successive steps. Certainly this should be done on review.

Exercises 60 and 61. Initiation of Tone II — III.

We come also to another additional step, the beginning of work in articulation. After mastering "ah," the mother vowel, other vowels should be practiced also, and this forms a second phase of initiation of tone. By keeping all the vowels large and open, and the whole tone passage free, and introducing "l," "v," "th," or other continuous voice consonant, being sure that the whole pharynx and back of the tongue are relaxed, we add to the primary vibration a third phase which lays the foundation for the right action of the organs in articulation, as well as furnishing an advanced step in controlling the breath and developing the openness of the tone passage. The co-ordinations, though they can be observed separately, are all practically one deep correlation.

It may be well to state some of the chief faults observable in starting tone. A tone may be started with a drag, a push, a cramp, or a jerk.

The greatest difficulty is the removal of unnecessary action. There must be no labor. Tone is seemingly started with no additional force, with the recoil of that used in taking breath. There must be no hesitation, no stopping. The breath seems to act almost as a rubber or elastic ball rebounds when dropped upon the floor. The tone seems to be made with almost a rebound of the breath. Only in this way will the vocal bands be brought into co-ordination, and a relaxed normal condition be preserved in the tone passage. Where it cannot be obtained on account of the student's carelessness, indifference, or muscular constriction little improvement can be made in the voice, but where it is secured improvement begins at once.

The first effect of the mastery of this simple but fundamental exercise, which will be overlooked by ninety-nine out of every hundred students, will be economy of the power to reserve breath. Breath will not be wasted at the initiation of tone, as is usually the case, but sympathetically and easily retained. It is probably the best exercise for the development of the power to speak or sing with a full chest. Many singers and speakers take plenty of breath, but lose it at the instant of the initiation of tone from lack of true co-ordination between the vocal bands and the diaphragm.

We may also improve the continental action of the lungs — that is, their power to contain more air — by establishing the elasticity of the whole thorax. The inspiratory muscles can be strengthened and the capacity of the lungs to take in air seemingly developed.

The retental action of the respiratory mechanism, however, is more important; for it is this staying of the tension of these muscles for the sympathetic and easy retaining of the breath in the lungs at the start of the tone that establishes and develops vocal power.

Let the teacher carefully adopt expedients to secure a natural beginning of a tone with the ease of conversation. The increase of the amount of breath should be easily and gradually attained, and all actions should be sympathetic and elastic. The opening of the tone passage must be spontaneous. The instructor should be watchful that the student has no constriction or strain.

Starting tone is the most technical and fundamental exercise in this book, and should be made the central point in every successive step taken. However many other exercises are introduced, from the technical point of view they should radiate from the right initiation of the tone just as all psychic exercises should more or less radiate from the attention or the reception of an impression as is the exclamation.

The starting of tone may seem ridiculously simple, but this is always true of the best exercises. It is the accentuation of the most fundamental action possible in tone production, but its very simplicity makes it the more difficult. To master it requires long and patient practice, but he who perseveres will reap a rich reward.

Lamperti practiced the exercise with five short " starts" then sustaining the tone as long as possible. He contended that the tone should be prolonged at least eighteen seconds. Anything below this indicated some abnormal condition or weakness. The student might go above that but should not strain too much.

This prolongation of tone is simply the sustaining of conditions established in the start. It, however, tests these as well as sustains them. If we are unable to prolong tone, we may then rest assured that the conditions were not effectively established at the initiation. If at the outset we have taken an unusual supply of breath and established ease, repose, and passive openness of the tone passage, then prolongation is very simple and means only the sustaining of the conditions, but often there is a collapse of conditions at the very beginning. This frequent fault, with many others, may be tested by prolonging the tone.

Sustaining a tone especially tests the economy of breath. Voice should be prolonged only until the breath passes back to the normal condition; to make tone with less breath than the average is positively injurious. To make tone after this requires a compression of the lungs by action of the expiratory muscles which can only be fettering to vocal and vital conditions.

II. INITIATION IN SPEECH.

Lamperti regarded the start as belonging to song, but it can also be applied directly to speaking. In fact, I have found it easier to secure at first a good initiation from most students by an inflexion with the right sympathetic retention of breath and openness of the tone passage than by a sustained tone. An inflexion is normal to all for it is continually used in speech, and is an easy method of studying the simplicity and ease of conversation and applying these in the practice of exercises.

Exercise 62. Initiation of Inflexion — I.

Take a simple breath and give an easy, natural, and steady inflexion with a decided initiation. Be sure that the tone is not pushed, nor dragged, nor in any way constricted, but that the inflexion is the result of the elastic action of the diaphragm and the vocal bands. Be sure also that the inflexion does not drag but that the force or ictus is at its very beginning.

After rising inflexions are practiced falling ones should be mastered. In each case they should be as straight and easy and abrupt as possible.

Teachers should adopt expedients of various kinds to secure a simple and natural initiation of tone with all the ease of conversation. In the inflexion all the conditions of the start can be applied and labored conditions readily detected. All constrictions can be easily realized. There are faults, however, in the practice of inflexions, such as carelessness and a failure to accentuate conditions. Let the student be sure in starting an inflexion to retain the breath sympathetically, to open the tone passage freely, and allow no constriction whatever, but use a good rising or falling inflexion in different degrees of earnestness, sometimes speaking it as if to a distance, at other times with real gentleness.

Let the student study the conditions of ease of his ordinary talking, note the primary element of this, and increase the conditions. At any rate, this is necessary in the development of the voice in speaking. Many teachers of singing slight the importance of speech. I said to one of my instructors, an illustrious man who gave me this lesson and told me to sing as I talked, "That is all right if you only speak right." He replied: "Speaking is nothing; the great difficulty in using the voice is to be able to sing." Teachers frequently encounter a tendency to start tone with too much labor, and it is necessary to correct this or to prevent it at the outset. In beginning lessons in singing many of the best teachers make the pupils speak. One leading teacher always requires the reading of the twenty-third Psalm; another the rendering of some simple poem. A single line is then taken and repeated on a distinct pitch as easily as possible. Students are likely to constrict more in singing than in speaking. By this method they are enabled to realize the ease of conversation and carry it into singing.

Now, if this fact is recognized, why not use inflexions of the primary elements of speaking as a definite exercise in starting tone? In my opinion, it is most helpful to start tone with inflexions. Even the student of song may secure assistance from such an exercise. Labored conditions can be easily removed.

The dangers in practicing inflexions as "starts" are carelessness and failure to accentuate retention of breath and openness of the tone passage. The tendency of song, on the contrary, is to use too much effort. In all cases, accordingly, both inflexions and prolonged or definite pitches of song should be used in starting tone, as they naturally complement each other.

Each art should be compared with another. Comparison of the art of song with that of speech is most helpful. Speakers, readers, and dramatic artists, or any who are trying to develop a speaking voice, should give some attention to the actions of the voice in singing.

The faults in speech and song are different. We have spoken more, hence we are apt to speak better, but song accentuates the singing tones and especially emphasizes purity of vibration. In speech there may be greater instantaneous responsiveness, greater naturalness in the use of the breath, a truer release or co-ordination of voice breathing with life breathing may be developed. In singing the speaker may develop greater power of retaining breath, of sustaining conditions, and may secure a sense of greater vibration, both primary and secondary.

The application of the results gained from the practice of the " starts " is very important. All the steps so far taken should be reviewed for the mastery of the initiation of tone, on account of the fact that this is the most fundamental of all exercises.

Specific applications of the results gained from the practice of initiation of tone should also be made with exclamations and single words from poems given with all the conditions of the starts yet with the spirit of the poem in which they are found. The mechanical tendency in the mastery of any exercise is thus eliminated.

Exercise 63.
Initiation of
Tone — IV.

Take, for example, the single word " O " from the following, and endeavor to give the joy, admiration of nature, or the spirit of the whole passage in this one word. Repeat this as intensely as possible many times until the conditions of voice, especially the reserve of breath through conditions associated with starting tone, are established. Then render the whole as adequately as possible, emphasizing these conditions, especially their establishment at the beginning of phrases.

THE COMMON WEALTH.

O voices of the sea and land,
How sweet upon my ear you fall!
The curlew's cry, the heron's call,
The grey gull's chatter on the strand,
The robin on the mossy wall,
The coal-tit almost at my hand —
How I thank Heaven for you all!

O wonder of the hills and sky,
How dear your beauty to my sight!
The wintry moon, the sea's delight,
The ruddy moorland far and high,
The pendant larch's silver white,
The golden wind-blown leaves that lie —
How I thank God for all this light!

Lawrence Alma Tadema.

XIV. FEELING AND VIBRATION

The fact that normal emotions cause normal qualities of voice must be referred to again and again. The very establishment of vibration is so closely connected with the sympathetic nervous system that a mechanical mastery of the conditions of tone at the point of initiation is hardly possible without a study of the effect of feeling. Normal emotions make the vibrations more regular, by economizing the breath, increasing the harmony and sympathy of its retention. In fact, such feelings stimulate all the conditions favorable to good tone.

Some have improved their voices in various directions by the simple practice of lyrics. Here is a step so simple and helpful to such a great variety of needs that it is strange how frequently it is neglected. Lyric poems full of joy, admiration of nature and sympathy with human life improve the imagination, stimulate the vital forces, awaken more normal views of life and, last of all, tend to establish normal conditions of voice.

I. VOCAL EFFECTS OF JOY.

Joy causes expansion of the whole body, stimulates the circulation and causes a greater retention of breath.

Since the easy, sympathetic reserve of the greatest possible amount of breath is the fundamental condition for good tone and the key to the right action of the vocal bands, the necessity of studying joy will be apparent.

Exercise 64. Conditions of Vibration — I.

Take, for example, the following words from Blake's "Laughing Song," and give them with a laughing invitation, and being sure that the conditions of joy are intensified repeat the word " come " with all the conditions of the starts and the addition of the emotion. The student should repeat it many times until he can co-ordinate the emotional with the technical conditions of vibration.

> Come live, and be merry, and join with me
> To sing the sweet chorus of " Ha, ha, he! "

"Laughing Song" William Blake.

The helpfulness of laughter for establishing the right voice conditions, especially the centrality of the motor power, has already been discussed. There is, however, an additional helpfulness to be noted in its study.

By observing natural laughter we discover important facts regarding the expression of joy. Not only does laughter centre its activity in the middle of the body, but we always take breath at the beginning of a laugh. If we observe anyone on the point of laughing we can see the expansion, the opening of the tone passage, the receiving and reserving of breath just at the beginning.

Exercise 65. Initiation of Tone — V.

By taking advantage of these conditions in an individual word, or better by laughing out "ha, ha" or "ho, ho" with the delicate sudden tones establishing conditions of primary vibrations, a helpful exercise will be found for the correction of various abnormal conditions. The exercise should be practiced as a start with a double or triple repetition with one impulse. The pitch can be varied widely also. This very stimulating exercise will tend to cause a class of students to laugh, but this must be controlled. The student must carry the conditions of laughter into the exercise itself, and should not laugh extraneously or independent of the exercise. It can be made an exercise for the control of feeling.

It is also of assistance in co-ordinating the conscious and unconscious, the voluntary and involuntary conditions in tone. A genuine laugh initiates itself, and then is regulated by will, not caused by it. Laughter is involuntary. We often laugh when we cannot help it. Voluntary laughter is unsatisfactory; it is mechanical and often a sign of a superficial character.

A laugh may be involuntary but not unconscious. Attend to the characteristics of your own laughter when some mistake or joke arises. This is the fundamental condition of all genuine expression. The thinking, the attention of the mind, the reception of the impression, cause such states of feeling as tend to establish conditions of tone simultaneously. Laughter is one of the most important of these spontaneous actions, and it acts directly toward right conditions of expression.

We always take breath at the beginning of a genuine laugh. The reason why laughter is so beneficial to health is that it stimulates breathing, and its frequency causes a greater quantity to be taken.

The pantomimic action in the laugh precedes vocal action. We can smile without laughing, but a laugh without a smile is something horrible. The laughter begins in the eye and shows itself especially in the upper corner of the lower lid. Then it reveals itself through the whole face; next, follows immediately the taking of an unusual amount of breath. The vocal part is the last, if the joy extends to a degree sufficient to cause this audible explosion.

What is the most essential part of the laugh? What part can be practiced to advantage for improvement of tone?

The most important point of the laugh is its initiation. Here we find something perfectly consistent with all the principles so far established. A good laugh initiates tone by simultaneous action between the breath and the vocal bands. By practice of the initiation sustaining the tone and the conditions of the laugh we may find a natural spontaneous action which will secure right co-ordination and sympathetic retention of the breath as well as that simple and true initiation of tone, fundamentally necessary either in speech or in song.

The study of involuntary vocal actions is always helpful. We are so apt to do a thing voluntarily and then think our way is right that we miss entirely the fundamental principle in the normal action.

In the study of involuntary actions we can usually realize at once whether a laugh is genuine. It must be caused by a genuine situation. The teacher must adopt expedients and must suggest something that will awaken laughter, then instantly stop and turn the consciousness of the pupil upon what he did, or rather what was done for him.

Laughter can be practiced in a way to accentuate almost any fundamental condition of voice and may be used as an exercise in the mastery of any step. It should first be employed to develop freedom and strength of the diaphragm and to secure control over the respiratory muscles. As each successive step is taken, the watchful teacher will perceive how to modify laughter and use it as a means for securing a subconscious effect by the possession of a principle.

In its practice be careful not to produce mechanically the agitations nor to make the laugh labored but rather to accentuate initiatory conditions. Normal conditions for tone occur at the beginning of the laugh. It is necessary that a true vocal artist command this beginning. Possibly this is why so few actors or readers can give a pleasing and effective laugh. They nearly always exaggerate the end of the laugh or the mechanical and volitional actions, rather than indicate the reception of the impression and the reposeful establishment of the conditions. A true laugh is seemingly retained in the breathing. It is never forced out by will into tone.

The laughter of people is a measure of their degree of culture. The forced, extravagant guffaw, in which most of the laughter seems to consist in the outward demonstration, marks a lack of culture, while the laugh in which the smile predominates, in which the inner activity far transcends the outer show, — the greatest activity being concerned with the retention of breath, — marks a person of self-control and refinement. This cultivated laugh is also more healthful and stimulative of vital energy.

One of the best exercises for practice is the following: Stand in an easy, upright position, and as far as possible become a spectator of your own worries and cares and simply laugh at them. This laugh need not be audible, but let it be internal agitation concerning the ridiculous fretting over what amounts to nothing. Thus, by the use of your imagination, you may change your point of view and see your own worries and annoyances in a new light, so that the laughter will be perfectly genuine. The "bluer" a person is tempted to be, and the more discouraged he feels, the more he should exercise this laughter. A few minutes of persevering practice each day may correct tendencies to depression and ward off positive disease as well as improve control of the breath in tone production.

It cannot be too strongly urged in the practice of laughter that the laugh be as delicate as possible. In its initiation, whenever there is a tendency to collapse, we lose the conditions at the start. This should be carefully avoided. Any action can be made an exercise by practicing its fundamental object, and any exercise may be degraded by carelessness and the practice of weaker tendencies.

It is well to practice laughter and singing with recitative. For example, after practicing the initiation of laughter, laugh out such lines as the last two of Blake's "Laughing Song" (p. 193) on different pitches. They can be given on low and high pitches, developing thus the free use of all parts of the voice as well as natural emission, sympathetic retention of breath, greater elasticity of the respiratory muscles, and purity of tone.

In the exercise of laughter be sure also not to accentuate outward demonstration but inward and co-ordinating conditions, the retention of breath and openness of the throat. Increase the sympathetic expansion of the whole body rather than purely local action. Soften the tone as much as possible. This practice aims to secure control of certain conditions rather than of the tone itself.

In all the vocal arts, such as acting, control of laughter is very difficult but very important. It should be mastered, however, not only for its own sake, but also for the control it gives over the voice.

Exercise 66. Conditions of Vibration — II.

Imagine the humorous conception of December and May, and give the joyous spirit of her laughter. Be careful to establish normal conditions and accentuate the pantomimic retention of breath rather than the outward forcing of the tone.

WHAT MAY SAID TO DECEMBER.

Old December in his dotage
  Tottered down the hill one day,
Stopped at Widow Worldly's cottage —
  Stopped to talk to little May.
May was busy in the dairy,
  Old December said, " Good day,"
Thought she looked just like a fairy
  Told her not to run away.
" Prithee, dear, do you remember
  What I said last Christmas Day? "
But May laughed at old December,
  Said she 'd taken it in play:
    Ha! Ha! Ha! Ha! Ha! Ha! Ha! Ha!
      Said she 'd taken it in play,
    Ha! Ha! Ha! Ha! Ha! Ha! Ha! Ha!
      Laughed the merry little May.

" Nay, I meant each word I uttered
  That day 'neath the mistletoe."
" Do you like your parsnips buttered? "
  Little May asked, laughing low.
" Child, I wish that for one moment
  You would try to serious be,
For I 've spoken to your mother
  And she tells me you are free.
But, my dear, you have one lover — "
  (Here he dropped on gouty knee,
Nearly knocked the milk-pail over!)
  " Do not laugh, dear — I am he! "
    Ha! Ha! Ha! Ha! Ha! Ha! Ha! Ha!
      " Do not laugh, dear — I am he."
    Ha! Ha! Ha! Ha! Ha! Ha! Ha! Ha!
      " Are you really — He! *He! He!*"

" Of my wealth you 'll be partaker,
  I can't spend it all myself,
Gold have I, and many an acre — "
  " Please, sir, put this on the shelf."
" Child, my wishes are your mother's,
  She has told me so herself,
She prefers me to all others,
  Think of *her*, you thoughtless elf."

"That I will," said May, "for really
  I don't care for lands or pelf,
And as mother loves you dearly
  She may marry you herself."
    Ha! Ha! Ha! Ha! Ha! Ha! Ha! Ha!
      "She may marry you herself,"
    Ha! Ha! Ha! Ha! Ha! Ha! Ha! Ha!

Mark Ambient.

II. DELICACY OF VIBRATION.

Another exercise often needed, especially where the voice is husky, is the practice of fairy songs, echoes, or any passages full of imaginative or emotional exaltation, calling for a delicate and pure vibration. These exercises demand an unusual economizing of the breath spent in producing the vibration. The tone passage must be kept as open and free as possible. The greatest amount of breath must be retained and the least possible expended.

This exercise, however, as a rule is better delayed until the sympathetic vibrations of the voice are undertaken, since not only is there a development of the primary vibration but the secondary ones are still more stimulated. In fact, this exercise can be more effectually practiced after some knowledge of secondary vibrations. The primary and the sympathetic vibrations must, however, be developed together.

Exercise 67. Transcendence of Conditions over Modulations — I.

Establish with great care the primary conditions of tone, and while increasing these decrease the volume of the voice, and express the tenderness of the "Bugle Song," accentuating the reserve of breath, the openness of the tone passage, yet making the tone as delicate as possible. Observe especially the delicacy of the second stanza. The echoes may be given in the word "dying" as a technical exercise with the most delicate diminuendo to the finest possible tone. Practice also the joyous and tender exclamations as starts.

BUGLE SONG.

The splendor falls on castle walls
And snowy summits old in story;
The long light shakes across the lakes,
And the wild cataract leaps in glory.
Blow, bugle, blow, set the wild echoes flying:
Blow, bugle; answer, echoes, dying, dying, dying.

O hark, O hear! how thin and clear,
And thinner, clearer, further going;
O sweet and far, from cliff and scar,
The horns of Elfland faintly blowing!
Blow, let us hear the purple glens replying:
Blow, bugle; answer, echoes, dying, dying, dying.

O love, they die in yon rich sky,
They faint on hill or field or river:
Our echoes roll from soul to soul,
And grow forever and forever.
Blow, bugle, blow, set the wild echoes flying;
And answer, echoes, answer, dying, dying, dying.

Tennyson.

Repeat on one pitch "Ding-dong," as the sound of fairy bells, from the song by John Davidson. Observe that the delicacy of the tone is not made by wasting or lessening breath or contracting the tone passage. Increase all the voice conditions, especially the sympathetic retention of the breath and the openness of the tone passage, and at the same time make the tone as soft as possible. Sustain the feeling of joy through all, especially in the lines which should be given with inflexion.

Weave the dance and sing the song;
Subterranean depths prolong
The rainy patter of our feet;
Heights of air are rendered sweet
By our singing. Let us sing,
Breathing softly, fairily,
Swelling sweetly, airily,
Till earth and sky our echo ring.
Rustling leaves chime with our song:
Fairy bells its close prolong
Ding-dong, ding-dong.

From "An Unhistorical Pastoral" John Davidson.

It is most important, after mastering the start and practicing it, to apply it both to speech and to song. A student may at times master a technical exercise, but the moment he begins to speak or sing he has lost the conditions which he could sustain. This is due to the fact that he has not a broad grasp of the principle, but apprehends only the mere mechanism of the specific action concerned in the exercise.

Any true exercise, such as starting tone, should be carefully applied in as many directions as possible. The student should apply it to his everyday conversation, to the singing of a simple song, to speaking, to telling stories, and to recitation.

One important application should be the rendering of poetry. Poetry is the intense realization of a situation or a truth. It is this that should cause accentuation of the primary conditions of tone. No matter what one's profession may be, whether he intends to become a singer, reader, or speaker, or merely aims to speak with greater pleasure to himself and to others, in business, society, or the home, the voice, as the most direct agent of intense poetic realization, should be recognized, and its conditions increased with the imaginative and emotional realization of ideas.

While joy or admiration of nature should be one of the first emotions to stimulate true vibration, all phases of love and tenderness should be practiced.

Exercise 68. Application of Initiation.

The most tender of lyrics may be made a technical exercise by giving such words as "Come" from the following, co-ordinating the emotion and the conditions of tone. Then render the same word from other poems with different emotions, such as excitement, patrotism, love, or joy, and the student can develop power to control the precedent feeling and to make this a means of establishing the necessary conditions for true vibration.

Come, come, from the fortresses of granite
  Walling half the world out, half the skies away,
Come where the low land, open by the shore-side,
  Offers to its children what a free land may! . . .

Scents of the salt breeze and scents of the clover,
  Wild rose and clethra and bayberry's breath,
Glamor of the sea-shine, witchery of mist wreaths —
  Hark! they are calling and the summer hasteneth.

Come, oh, come, from the shut and hampered valleys,
  Come where the waves on the long beaches run,
Come where the bosom of the warm earth is breathing
  Cool breaths of ocean in a broad sweep of sun!
"A Message" **Lydia Schuyler.**

Come, boys, come out, the bluebirds call,
The blackbirds chirp above the wall,
Come race across the meadows wide
Away, away to the river side. C.

Come live with me, and be my love,
And we will all the pleasures prove
That hills and valleys, dale and field,
And all the craggy mountains yield.
From "The Passionate Shepherd to His Love" **Marlowe.**

Observe also the expression of pathos. Give the word "Calm" with the spirit of the whole of the following, and note how the controlling and intensifying of the pathos of the poem may become a means of establishing the co-ordination between the retention of the breath and the right action of both the tone passage and the vocal bands.

Calm on the bosom of thy God
  Young spirit! rest thee now!
E'en while with us thy footstep trod,
  His seal was on thy brow.

Dust, to its narrow house beneath!
  Soul, to its place on high! —
They that have seen thy look in death,
  No more may fear to die.
"A Dirge" **Mrs. Hemans.**

Observe the necessity of pausing and renewing the conditions in repeating the word "wild" or "dark" or "cold" from the following. Also note the tendency to emphasize "peace" and "rest" by isolation and the accentuation of voice conditions. The student should repeat these words many times to establish the power of instantly taking breath and opening the tone passage. Make the preparatory actions as decided as possible.

THE DEAD CHURCH.

Wild, wild wind, wilt thou never cease thy sighing?
Dark, dark night wilt thou never wear away?
Cold, cold church, in thy death sleep lying,
Thy Lent is past, thy Passion here, but not thine Easterday.

Peace, faint heart, though the night be dark and sighing;
Rest, fair corpse, where thy Lord himself hath lain.
Weep, dear Lord, where thy bride is lying;
Thy tears shall wake her frozen limbs to life and health again.

Charles Kingsley.

Teachers should also practice dialogues or exclamatory phrases from dramatic passages for the application of principles involved in the starts or in the true use of the voice.

Cannot the mechanical, expressionless singing so common in our day be partially corrected if instructors adopt a similar course in teaching their art? Why not occasionally take some little phrase from a song, opera, or oratorio, and have the student practice it with fervor and intensity. The teacher should then observe whether the conditions of the exercises are being assimilated and awakening the imagination and the true expression of the student.

Such a method would also prevent prejudice on the part of pupils against mere technical exercises, and the universal tendency to practice them in a perfunctory way.

SUMMER MOON.

Summer Moon, O Summer Moon, across the west you fly,
You gaze on half the earth at once with sweet and steadfast eye;
Summer Moon, O Summer Moon, were I aloft with thee,
I know that I could look upon my boy who sails at sea.

Summer Moon, O Summer Moon, you throw your silver showers
Upon a glassy sea that lies round shores of fruit and flowers,
The blue tide trembles on the shore, with murmuring as of bees,
And the shadow of the ship lies dark near shades of orange trees.

Summer Moon, O Summer Moon, now wind and storm have fled,
Your light creeps thro' a cabin-pane and lights a flaxen head;
He tosses with his lips apart, lies smiling in your gleam,
For underneath his folded lids you put a gentle dream.

Summer Moon, O Summer Moon, his head is on his arm,
He stirs with balmy breath and sees the moonlight on the Farm,
He stirs and breathes his mother's name, he smiles and sees once more
The Moon above, the fields below, the shadow at the door.

Summer Moon, O Summer Moon, across the lift you go,
Far south you gaze and see my Boy, where groves of orange grow!
Summer Moon, O Summer Moon, you turn again to me,
And seem to have the smile of him who sleeps upon the sea.

Robert Buchanan.

XV. FAULTS IN VIBRATION

Faults of vibration are caused not only by wrong use of the vocal bands, but by some misuse of the breath. There is generally a waste of this due chiefly to some failure to adjust the vocal bands to their function. Since these act in co-ordination with the diaphragm, however, the fault may be caused by too great forcing out of breath, or constriction, or by some primary retention of the breath.

I. PASSIVITY.

A common fault in vibration is a certain inactive condition of breathing. Many on arising in the morning allow the chest and lungs to remain in a collapsed condition. There is not sufficient activity in the diaphragm to bring the vocal bands into activity by co-ordination.

Some have this fault in speaking at the end of sentences. They breathe too seldom or give up support prematurely or before closing a sentence. In this form it is more or less injurious as it may be followed by constriction and congestion not only of the larynx but of the pharynx as well.

A few have this passivity as a natural fault even in conversation. In such cases it is usually associated with disease of the lungs, and I feel sure that it causes such trouble. To remedy the tendency in time will prevent further serious consequences. This fault, in all cases, can and must be corrected, by proper development of breathing.

Any exercise in exclamation, laughter, or accentuation of conditions will be helpful. Such people need to be awakened and there is nothing like expression — frequently dramatic expression — to accomplish this result.

II. HOARSENESS.

When the vocal bands are swollen by cold or when mucus is abnormally secreted upon the membranes, especially upon the bands themselves, we have the condition of voice known as hoarseness. This is a purely temporary condition dependent upon the health.

When hoarse, the voice as a rule should not be used or exercised. When there is a " cold in the head " the use of the voice, however, actually tends to help the cold. It is only when hoarseness is due to inflamed vocal bands or other parts of the larynx that the use is dangerous.

The intimacy of the vocal bands with breathing is shown by the fact that deep, slow breathing, retaining the breath a short time without making tone, will often have a marked effect upon hoarseness.

III. HUSKINESS.

A chronic condition of the vocal bands may be developed by neglecting colds; as an after effect by carelessness in dyphtheria; and in many ways. Huskiness is possibly the most difficult fault to correct when its occasion is found in the action of the vocal bands. It may be acquired by the use of the voice when these bands are swollen from any cause. Sometimes the parts adjusting them will be found abnormal. One of my teachers showed me, by the use of the laryngoscope, a delicate black streak on his vocal bands which indicated the cause of huskiness in his own voice; a condition which he felt to be incurable by training.

Huskiness is occasionally due to attempts to strengthen the voice by making loud tones and pushing and forcing the breath until the parts are so strained that the vocal bands cannot adjust themselves accurately in position. In many such cases, the physician recommends absolute rest for a time that the parts may recover their normal tone. A cure can be effected only by gentle exercises. There must be practice of the most delicate tones such as will bring the vocal bands into sympathetic opposition and vibration without labor.

The repetition of delicate, joyous exclamations is a help in the correction of the fault. It is especially valuable at the beginning of the practice and is a safe exercise for the student when alone.

The best technical training is the simple practice of starts. In this case the start must be given with great delicacy and shortness. The vibration should be established as easily as possible and immediately the parts should be allowed to come to rest. Many voices are pure after the tone has been started, but give the impression of huskiness on account of the waste of breath at the initiation. This is practically true in all cases of huskiness.

In respect to this most difficult of faults we must consider the importance not only of co-ordination between action of the breath and relaxation of the tone passage, but also of the new co-ordination which must be observed between the sympathetic retention of the breath and the action of the vocal bands.

In an endeavor to cure huskiness attention must be given to health, especially to the vital condition of the mucous membrane. The body must be kept strong and normal, and the mind in a positive and joyful attitude.

Moody depressions often cause an abnormal relaxation of the vocal bands and a lessening of the retention of breath. The abnormal functioning of the vocal bands is no doubt due to depression or perversion of the respiratory action. Not only huskiness but minor inflexions and many other serious defects are the result of cherishing abnormal moods. Training must direct attention to the fundamental psychic cause of such defects.

Huskiness is the opposite of purity. Any exercise for purity of tone will tend to correct it, but where the state is chronic greater care is required. The exercises must then be more delicate, and must be practiced longer and with greater perseverance than those for the correction of any other fault.

IV. BREATHINESS.

The most common fault of vibration is waste of breath, due to weary or sluggish action at the beginning of a tone. It is often caused by a kind of push of the breath on account of a preponderance of the desire to give rather than to retain it as a condition. Loud speakers nearly always become breathy if not husky.

The remedy is found in the general training of the voice, especially in the starting of tone and other work to develop economy of breath. In fact, a little observation will convince anyone that these faults of vibration, huskiness, aspiration, and other unpleasant qualities are associated with waste of breath. In correcting any of these it will be well to awaken a sense of the small amount of breath that is spent in making a good tone. Whisper a note, and then give it with good tone, and observe how much more breath is used in the whisper. Purity is the opposite of huskiness. Any exercise that will economize breath and develop its sympathetic retention, directly or indirectly, will help to cure huskiness.

Students are apt, in beginning the practice of voice, to bring into active exercise the expiratory rather than the inspiratory muscles. Hardly one, when asked to make a tone, will not commit this error. This unusual effort defeats progress for months and often causes huskiness. All ordinary cases of waste of breath will almost immediately yield to the exercises for the economy of breath, initiation of tone, or for the development of purity.

What is the best method of dealing with any fault of voice?

The best so far recognized consists in securing control of the local part with which the fault appears to be most directly associated. This seems scientific because, as already shown, most faults of voice are directly associated with constriction of some specific part. It must be freely granted that in training the voice it is of great importance for the teacher to be able to put his finger upon the constriction that occasions a false vibration.

Why is this method inadequate? Because faults of voice are the result of habit. A mere conscious control for a moment of the part constricted, granting that this is possible, is forgotten in the hurry of speech, and the fault recurs.

With every normal or abnormal action of a muscle or part of the body there is always a remote cause in some perversion of thinking and feeling, and this must be removed before any fault can be permanently and radically corrected.

All qualities of the voice must be studied in vital relationship to primary conditions, physical and mental. After any work on nasality, throatiness, flatness, or huskiness, or after attention to some specific quality, there should be a return to fundamental conditions and the rendering of some beautiful passage.

It must be remembered that a quality is something that can be distinguished but not separated from the object. All essential qualities are present simultaneously. In a beautiful tone, its openness, freedom, purity, richness, all cause one impression, and it is only with the lack or perversion of these qualities that we begin to discern their especial differences. The essential qualities blend together into unity but faulty tones are isolated though often organically united.

Render some lyric full of normal emotion, such as love or joy, exercising as much as possible the imagination and feeling, so that all the conditions can be accentuated, all faults eliminated, and all positive qualities developed simultaneously.

Exercise 69.
Positive Conditions of Vibration.

To test the freedom of the student from all faults and to develop normal qualities, sometimes single words may be used, such as "Open" from the following poem. By speaking this many times, and expressing the tenderness, right conditions can be accentuated and observed. Or better still, give the phrase "Open the door to me" several times, keeping the mind not in a negative attitude observing some fault but in opposition to the tendency of the fault, positively concentrate attention upon the situation and fill the words with tender feeling.

OLD SONG.

" Love, I have wandered a weary way,
  A weary way for thee,
The East is wan with the smile of the day —
  Open thy door to me!

" My hair is wet with the dew of the night
  That falls from the cedar-tree;
The shadows are dark; but the East is light —
  Open thy door to me!

" The stones of the road have bruised my feet —
  The hours till morn are three —
Thou that hast spikenard precious sweet, .
  Open thy door to me!

" Stay not thy hand upon the lock,
  Nor thy fingers on the key.
In the breeze before morn the tree-tops rock —
  Open thy door to me!

" My love is the fairest, the only one,
  The choice of her house is she —
The height of the heaven hath seen the sun —
  Open thy door to me!

" The holy kiss of my lips and thine
  Shall the sun have grace to see?
The hours foregone of the night are nine —
  Open thy door to me!"

H. C. Bunner.

XVI. TESTS OF NORMAL AND ABNORMAL QUALITIES

In studying faults and in the applying of exercises for their correction and for the general improvement of the voice, the student, as well as the teacher, must be led to make careful observation. How can we distinguish a good from a bad tone, or a normal from an abnormal quality?

I. THE SPECIAL TEST OF THE SENSES.

The primary means of detecting all qualities, normal or abnormal, as well as all modulations of the voice, is the sense of hearing. Many vocal teachers depend entirely upon the ear. The teacher sits at the piano and, never looking at the student, judges entirely by his ear.

The ear is the primary agent and must be trained as will be shown later. But what other means can be found by which we can test or realize right or wrong tone conditions or judge the difference between normal or abnormal qualities? By one who understands the right conditions the eye can be used. For example, we must perceive whether the student is breathing in the centre of his body and with ease, or whether he is constricting his chest. A man may breathe incorrectly and yet make a moderately good tone and the ear at any rate may be totally unable to detect the fault. The teacher may then go on practicing for months when with a right knowledge of normal breathing, he could ascertain the cause of the trouble.

Even granting what I doubt — that a teacher may be found who can detect wrong respiratory action from the character of the tone alone — the pupils need instruction as to the cause of the difficulty. They are not so expert and their attention must be directed, in case of perversion, to the character and location of the fault. Otherwise they often perpetuate bad habits which hinder their life work, habits which might have been easily corrected by right knowledge of breathing and by direct attention to respiratory action.

Perhaps more important still, constricted tones are often associated with constrictions in the body, especially in the face. If the student's attention be called to the signs of effort, or to cramps in the face, or stiffness in any part of the body, he may be able by correcting these to prevent the hidden constrictions of his diaphragm and tone passage.

It is surprising what constrictions are found in the faces of singers. Every one of these grimaces is associated with abnormal muscular action in the pharynx. It is impossible to have a constricted face and a perfectly relaxed and free tone passage. It is important for pupils to learn to feel the tone through the whole face, and to put the latter into sympathetic relationship with the situation. Many constricted and abnormal tones can be corrected by the development of right facial expression.

Again, the sense of touch may be of great service. Many illustrations are given in this book, where the finger of the student may be so placed upon a specific muscle that he can feel the local constriction occasioning his fault.

II. SENSATION.

Another important aid used with great results by the teachers of the old Italian school is the right feeling or sensation which awakens when a tone is being properly produced. Normal and abnormal tones greatly differ in their effects upon the nervous system. The student must be able to distinguish those sensations which are directly associated with a good tone.

There may be other tests; certainly these should be considered by every true teacher. First, a tone must both sound and feel right. It must please the ear or the sense to which all sound directly appeals. The student must be trained so that he will recognize in his own nerves the sensations of right vibrations. It is difficult to judge of the character of a tone and especially to recognize just the exact cause or occasion of any imperfection, and in the training of the voice, as in every condition, all the senses should be considered and as much as possible brought into sympathetic co-ordination.

The teacher must also understand the normal functioning of the mechanism and be able to see with his eye any abnormal actions or to detect them by the touch of his finger. He must apply locally, as well as in other ways, an exercise for the correction of the perversion.

III. GENERAL SIGNS OF PROGRESS.

Not only must attention be given to these specific tests; a still wider view must be taken. What are true signs of progress? How can the student know that his voice is improving? How can the teacher recognize that he is taking the right steps? The right opening of the mouth may be secured and the right centralization of the breathing apparently be developed but still the voice may not seem greatly to improve. Though these instances are rare, they are occasionally found.

It must be borne in mind that where perversions are extreme, the abnormal actions have become completely unconscious and a part of the permanent habits of the individual. Hence, occasionally, the correct action of the exercise is superficial or consciously done by the will only in the presence of the teacher or during a deliberative practice of the exercises.

This is one important reason for specific psychic problems and work such as that upon exclamations, in which attention, imagination, and feeling are exercised. The local actions must receive a deeper application. An exercise may be seemingly mastered and not become subconscious. No exercise is adequate until it has awakened some unconscious conditions, until it has become a part of the man's strongest habits and activities. The student must have patience. Nature takes time to develop the delicate muscles of the pharynx.

An important sign of improvement is the elimination of labor and of such faults as throatiness, nasality, flatness. The voice becomes less husky, stronger, more easily controlled, and more responsive to thinking and feeling.

Progress is especially indicated by what may be called the essential qualities of the voice. All the preceding lessons imply certain normal qualities which should gradually unfold in the course of practice. As a result of the mastery of the first lessons, for example, the voice becomes more responsive to actions of the mind. A change in mental conception or situation, a surprise, or genuine impression, produces an instantaneous effect upon the tone. An untrained voice seems independent of the changes in thought and feeling. Once the co-ordination of the primary conditions is established, the natural response is restored, and the voice alters with every variation of the mind.

When primary exercises are mastered and a correct method of breathing acquired, when there is a central and harmonious control of the breath, when the motive power of the voice has been developed, tone production begins to be easy, labored action disappears, and the tone becomes natural and pleasant not only to others but to the student himself. Centrality of the actions concerned in tone production is synonymous with ease and repose. The moment right control of the breath begins the tone seems to be more a part of the man; it is more sympathetically responsive, more vitally connected with thought and feeling. As the openness of the tone passage and the preparatory actions and conditions for speech are secured, the tone begins to be more open, its vibrations freer, its emission more nearly normal. Not only are all abnormal contractions of this passage eliminated, but the corresponding constrictions, such as nasality, flatness, and hardness are also removed, and the vibrations begin to be richer.

The expressive modulations of the voice also begin to multiply. Variations of pitch, or those sympathetic vibrations which seem to have been lost are restored, and all the expressive modulations become more harmoniously, simultaneously united. As a violin needs to be in tune and every part in normal condition in order that its tone may have that richness peculiar to the instrument, so the whole mechanism of the human body and especially of the parts directly concerned in tone production become attuned to more sympathetic vibration and brought into harmonious accord.

The greatest of all signs of progress is the development of the positive qualities, purity and richness of vibration, and the greater unity of thinking and feeling in their revelation through the voice. When the fundamental co-ordinations here advocated are established, not only is there greater control of breath, a more open gateway for the voice, better vibrations and greater ease in producing tone, but many other co-ordinations begin to be established indirectly. True growth is always harmonious and applies to all phases of the organism. One-sidedness is a sure sign of incorrectness in method.

Again and again the student should render some favorite passage forgetting his technical exercises and endeavoring to become conscious of the greater power he has gained, — power to think and feel, power to express spontaneously the deeper conditions of his being.

> Yoho! past hedges, gates, and trees; past cottages and barns, and people going home from work. Yoho! past donkey-chaises, drawn aside into the ditch, and empty carts with rampant horses, whipped up at a bound upon the little watercourse, and held by struggling carters close to the five-barred gate, until the coach had passed the narrow turning in the road.
>
> Yoho! down the pebbly dip, and through the merry water-splash, and up at a canter to the level road again. Yoho! Yoho!
>
> Dickens.

CHEERFULNESS.

The discontent you feel with the work you are compelled to do comes from your doing it in the spirit of a drudge. Do it in the spirit of an artist, with a perception of the beauty which inheres in all honest work, and the drudgery will disappear in delight. It is the spirit in which we work, not the work itself, which lends dignity to labor; and many a field has been plowed, many a house has been built, in a grander spirit than has sometimes attended the government of empires and the creation of epics. The cheerfulness which comes from the beautiful performance of such secluded duties disclaims all aid from mere animal spirits, and attaches itself resolutely to what is immortal in our being. It is " a masculine and severe thing; the recreation of the judgment, the jubilee of reason; filling the soul, as God fills the universe, silently and without noise! "

Cheerfulness is a characteristic of all great writers whose thoughts and imaginations have their spring in primitive feelings and affections, which are sound, vigorous, and unspotted with discontent and misanthropy. There is often in pathos a gentle and refining melancholy, a tender sadness, which does not sadden. The fire of Milton's genius burns away the mists and vapors of the soul as readily as they are chased away by Ariosto's more graceful and gleeful enchantments. The tempest-like passions that rend the breasts of Lear, Macbeth, and Othello are spiritual tonics. In short, where there is health in the senses and the soul of the writer, there is cheer; and, what is more, the sun-like radiation of cheer. . . .

We should specially watch and wait for those precious moments, not common to the most bountifully endowed natures, but coming at intervals to all, when Heaven seems graciously revealed to our minds — when, through inlets of inspiration suddenly opened, stream thoughts and sentiments which, for the time, make existence ecstasy! Fix these moods in the memory, hoard them in the heart, assimilate them to the very substance of the soul; for they can endear life, and make it beautiful and sweet, long after their imparadising rapture has faded into " the light of common day." " Hold," says the Eastern proverb — " hold all the skirts of thy mantle extended when Heaven is raining gold! "

Adapted. **E. P. Whipple.**

V

LENGTH OF THE SOUND WAVES

Aside from the initiation of vibration the vocal bands discharge the important function of giving and varying pitch. Change of pitch is one of the most observable elements in all uses of the voice, not only in song but in all vocal expression; yet nothing illustrates the prevalent ignorance of the rudiments of speech more than the misconceptions regarding this, the most common of all voice modulations. In one of the most scholarly of recent dictionaries, under the subject of voice, we find this sentence: " In ordinary speaking, the tones of the voice have nearly all the same pitch and the variety of sounds is due rather to the action of the mouth organs than to the definite movement of the glottis and vocal chords." Such a statement is astounding!

Over against this place the following from one who understands the subject, Harry Collins Deacon (article on Singing, " Dictionary of Music"). " A short inquiry into the difference between speaking and singing in the five languages to which the largest amount of vocal music has been composed, namely, Italian, Latin, French, German, and English, will not be out of place. Of all languages, the Italian is most alike in singing and speaking — English the least. Of the four essential points of difference between speaking and singing, the first and foremost is that in speaking (as in the warbling of almost all birds) the isochronism of vibration is never present for a period long enough to make an appreciable musical note. A sympathetic speaking voice is one whose production of tone most nearly approaches that of the singing voice, but whose inflexions are so varied as to remove it entirely from actual music. The word 'Cant' not improbably has its origin in puritanical sing-song speaking, and the word has been transferred from the manner to the matter, and applied to hypocritical expression of sanctity or sentiment. In sing-song speaking the exact opposite of the above combination is generally found — namely, an approximation to musical notes, and an abominable tone-production. The second distinguishing point is the fact that in ordinary speaking little more than one third (the lower third) of the vocal compass comes into play, while in singing the middle and upper parts are chiefly used."

In song any change of pitch is recognized because each tone is given in a fixed key and is of a definite length, so that many persons can unite in a melody, or with mechanical musical instruments. All intervals and length of tones can be measured and objectively recorded in a score. In speech, however, the variations are far more numerous and infinitely more complicated. Hence, they cannot be indicated mechanically. All that can be done is to hint at the fundamental elements. The fact that they cannot be adequately recorded has possibly caused them to be so frequently overlooked, even by able observers.

If we consider carefully the modulations of the voice in simple conversation and their relations to mental actions, we shall find that every variation of inflexion or pitch, as well as every modulation of any kind, no matter how slight, has a psychological cause.

These modulations of the voice are numerous and vary in unity generally in proportion to the degree of culture of the individual. Many persons have so long suppressed or left inactive imagination and feeling and the higher powers that the voice remains rigid and crude, with its possibilities of responsiveness undeveloped.

In other persons, though imagination and feeling have been unfolded, the natural connection between the higher actions of the mind and the voice has never been found or trained. It has rather been perverted on account of the wrong use of the voice.

The voice of nearly everyone responds to ordinary thinking, and the attitudes of the mind in everyday life. The first of these to be learned consciously or unconsciously, which are realized early in the child's life, are the variations in key or vocal form, resulting from a combination of inflexions and changes of pitch.

The improvement of all the modulations, especially of the higher ones, or the higher use of all of them, implies a responsive condition of the voice, which is best developed by the exercise of the specific functions, and especially of the elementary actions of each part. It is the office of vocal training to develop expertness in performing the elemental functions of the voice.

The conditions favorable to modulation will be considered in accordance with the three modulations which can be given to the sound waves. A sound wave, as has been shown, can vary in length, that is, pitch; in height, or amplitude that is, degree of loudness or volume; in shape, that is, in resonance or tone color.

Usually the first of these to be mastered is the power to change the pitch; at any rate this, being expressive of the rational intellections will be first considered. It is most intimately connected with ordinary thinking.

Although there is a vital connection between mental action and voice modulation; although the voice immediately responds to every variation of thinking and feeling, still, merely possessing an idea or an emotion does not necessarily cause its natural sign, unless the organism and the voice are in a normal and responsive condition.

The best musician can hardly bring music from an instrument out of tune. Training is especially concerned in the establishment of these normal responsive conditions. The voice must be attuned before it will respond directly to the actions of the mind.

The first condition observable in voice, as a rule, is a certain rigidity or want of responsiveness. It lacks facility to change pitch, to make inflexions, or to modulate in response to thinking and feeling. The first step necessarily implies the strengthening of the mental actions because all imperfections of voice are more or less caused by imperfect action of the mind. Still, these mental actions may receive direct attention and yet the voice may have been so perverted by habit as to remain rigid. Hence, specific study and development of the elemental, distinctive, or functional actions of the voice are necessary.

XVII. THE TRAINING OF THE EAR

Before beginning the study and development of variation of pitch we meet the necessity of training the sense by which the mind recognizes the primary modulations of the voice. The chief aid in realizing tone is the ear. All animals with voices also have ears. Whenever there is an imperfection in the ear there will be some defect in the voice. The deaf mute may have as perfect vocal organs as anyone but his lack of control over his voice is due to his lack of hearing. Simultaneously with all improvement of the voice there must be education of the ear. Exercises must be given for the direction of attention through the ear to the various modulations of the voice.

It seems strange at first how crude is the recognition of these modulations, and yet when so little attention is paid to training the ear how could it be otherwise?

To make any discrimination between the fundamental and the accidental elements in voice modulations, to develop or to accentuate any one of them, or to turn one of them into an effective exercise requires a recognition of their character.

Here is one of the basic phases of education, frequently overlooked in the past, namely, the development of the senses. A sense is simply the agent of the mind's attention, a means of receiving an impression from objective things.

Hallock, in his book on " The Central Nervous System," endeavors to prove that Shakespeare was the best educated man of his time, if not of all ages, by pointing out the accuracy of his perceptions. All flowers are referred to accurately; the descriptions of plants are marvelous, and the reference to every sound is correct. Hallock conjectures that Shakespeare received his training in visits to his grandfather's farm at Snittlefield.

The new method of studying nature, by directing the observation of children and of training all the senses, especially the eye and ear, reveals the possibilities of developing organic agents as the basis of education.

One of the most important senses is the ear; without its improvement not only would all work for the development of the voice be greatly hindered, but much of life's enjoyment would be lost. When a human being in early life loses the sense of hearing, it requires care and perseverance to teach him to speak. The natural expressive modulations of the voice have rarely been mastered by such persons.

Many people consider the eye the most important sense; but a gentlemen who had been completely blind for twenty years once said to me, " I should prefer to be blind than deaf." I was astonished at this and asked him why. " Because," was the answer, " the deaf are cut off from communication with their kind."

The ear is not only the greatest agent of social intercourse but it is more connected with feeling than the eye. Music is the most subjective of all the arts. Without the modulations of the voice, feeling could hardly be defined or expressed. The inadequacy of words to represent feeling is well known. It is the voice that furnishes the natural signs of emotion and without proper attention to these, the development of refined feeling is hardly possible.

I. POSSIBILITY OF DEVELOPING THE EAR.

There are some who foolishly consider the ear incapable of improvement. "I have known cases," says one, "where all the children of a family can sing except one, and that one has no power to use the voice in song; cannot, in fact, carry or recognize the simplest tune."

Many similar cases could be mentioned but they prove nothing. That particular child may have had unusual sensitiveness to singing but may have heard discordant songs or tones which prejudiced it against all singing, and caused a suppression of attention to song, or some shock may have been given the nervous system. I knew a gentleman who had a particularly high appreciation of all music, and yet he himself could not sing a note. How it happened that he lost the connection between his own will, controlling the vocal bands, and his appreciation of music, was of course a mystery; but for some reason, that particular action of the vocal bands may have become temporarily inactive and the co-ordinate actions lost. These primary conditions of song, these complex co-ordinations, which concern nearly everything man does, speaking certainly as well as singing, could have been easily restored by a little attention at the time or soon afterward. This was neglected and the longer the separation or disconnection was kept up, the wider the breach became, until the possibility of restoring co-ordination was practically lost.

Of course some one will say, " Why is there not a corresponding loss in speech, if speech is more complex than song? " Because speech is a necessity of everyday life, and is constantly in use; but that such co-ordinations are lost in speech is shown by stammering and other impediments of speech. I have known persons in good health appear to lose completely the power of speaking normally. One lady in particular came to me, who thought she had hypnotized herself by reading an article on the loss of speech. Every word was dragged and drawled; every element pronounced, although much slower than usual, and all inflexions had been lost. Here was a peculiar case, where all the functions of voice remained practically in command, except the modulations of inflexion. Change of pitch between phrases and sentences seemed to be partly left, but even this was imperfect.

Of course there are differences in capacity in the susceptibility of the ear in both speech and song, as in all other faculties and powers. I have found frequently that the children of those who do not often hear singing in the home, other things being equal, have poor musical ears; but every sense as well as faculty and power in a human being, can be improved and trained. Even in such homes an occasional child, possibly from some early influence, such as the hearing of some beautiful music, which awoke early the consciousness of the function, possesses unusual musical powers. Such exceptional cases can be easily explained and are analogous to facility in other pursuits or arts. Everybody can learn to sing, if the steps are taken at the right time and in the right way, just as everyone can learn to speak.

Those who understand the physiological basis of education need no argument as to the necessity of training the ear, or the possibility of developing it. The importance of training the ear is shown by an innumerable number of considerations. It is the closest of all the senses to the sensibilities and emotions. It may also be added that it is a more spiritual sense than sight. The eye is intellectual, but the ear has a deeper sensitiveness. While discordant colors may irritate many, discordant sounds will affect nearly everybody. While any strain in the eye may cause constriction of the forehead and tend to harden the voice, a discordant sound or noise will induce a still worse constriction and a greater irritation of the nerves.

The time devoted to training the ear is never lost; when once the mind uses this organ as an agent of attention, improvement in the voice will be rapid.

It is unfortunate that attention is not given to this subject by mothers, nurses, and teachers, as the younger the child, the easier it is, other things being equal, to develop and unfold every one of its senses. This development seems to be the first birthright of the human being. The earliest sounds to be heard by the child should be song.

The power of the ear to realize modifications of sound, whether in speech or song, seems astonishing. I know a gentleman who has given great attention to the collecing of violins. When he hears a violin anywhere, he can tell the country in which it was made. He can even distinguish between the violins of the chief makers of Italy by their tones alone. One whose business it is to test pianos develops marvelous power to appreciate differences. A wise person always calls in the assistance of such an expert in selecting a piano. Even differences in the tones of pianos of the same make can be detected.

The ability of Dr. Alexander Graham Bell to detect every shade of difference and of delicate inflexions in speech, caused me great astonishment when I had the honor to be his pupil, and yet when we remember the long years of attention given by the discoverer of the telephone to the human voice and to sound much of this skill is naturally to be expected.

His father, the discoverer of visible speech, whose pupil I also was, had also marvelous power to realize every peculiarity of vowels, consonants, as well as of inflexions. This was the fruit of long years of direct attention to the subject of speaking.

The training of the ear is a simple matter of exercising the direction of attention or of using the ear as the agent of the mind in recognizing certain vibrations. Men seem to think that it is unnecessary to educate the senses, — that the eye, for example, needs no training, but it is educated through long years of experiment. Unless the sight, the quickest of all senses, is developed, the eye may look at things but will not see them.

One who has had cataracts upon the eyes from early childhood, after these have been removed will grasp with the hands for objects seen against his face. Education of the eye and ear should, as a rule, precede all other forms of education. The child has to experiment with its eye and reach out with its hand, co-ordinating touch and sight until he learns to measure distance. Color blindness is often a result of neglect. There has been no attention to discrimination of tints.

Possibly, if we knew all the facts, hearing would be one of the easiest senses to train, and there is no excuse for having a "poor ear." All that is needed is perseverance and careful observation of the primary actions of the voice. So true is this that Regnier, one of the greatest teachers of modern times, and for forty years the foremost actor in France, said that to succeed on the stage a man should be afflicted with some incurable impediment. The truth back of this paradox is that physical conditions do not make an artist. Perserverance, hard work, application, the discovery and mastery of conditions, the manifestation of mental action through voice and body are the primary essentials.

The basic step then to be taken in training the ear is the directing and fixing of attention and the use of the sense as the organ of the mind. It must be remembered that it is mental work that is needed, though this implies stimulation in the use of certain agents. A person with so-called " poor ear " may have a perfect physical organ but he has not made it the agent of his mind.

II. THE SENSE OF VARIATION IN PITCH.

Many persons have a good ear for inflexion but not for fixed pitches. Some fail especially in discriminating changes of pitch between words and phrases. All these defects are due to lack of attention. As we have seen, the ear is simply the agent of the mind and attention should be directed through the ear to all the various phenomena of change of pitch.

The following method of developing the ear, a part of which is taken from Dr. Graham Bell's lessons, has never failed when the students gave the proper attention and practice.

Exercises 70–74. The Sense of Inflexions and Intervals.

On a piece of paper or blackboard make a long sloping mark upward, and then in contrast one sloping downward. Make the rising slope gradually, following it slowly with the voice, and then do the same with the downward mark. The contrast should be so salient that the dullest ear can realize the difference. Then gradually give both more rapidly while preserving the same form.

Make also the downward slide first, and the upward one second, and practice in reverse order. Pass from one to the other in various ways, keeping the inflexions long and gradual enough to be recognized, quickening them as the power to give attention through the ear is developed.

Contrasts of any kind greatly help in training the ear. If a person cannot tell readily whether the voice rises or falls, when the two are given in contrast he will be able by this exercise to detect the difference. The teacher may make straight or sloping lines on the blackboard with an abrupt change upward or downward, then straight again, making all sorts of directions, and have students follow with their voices these lines as directed by a pointer.

After a little practice with the teacher, either individually or in class, the student should conduct such exercises alone until he realizes the direction his or any voice takes at all times. Let no one be discouraged, but make the marks gradual at first, and in a little while he will recognize differences quickly.

The teacher with a large class of any grade, even very young children, can make an inflexion and call for the students instantly to follow. The class must be trained instantly to obey instinct. Inflexions may be greatly varied in direction, in length, in abruptness, and in the different pitches upon which they are initiated, and last of all in straightness, though this should be an accidental part of the practice.

Again, the teacher should make inflexions and ask the class to tell what inflexion was made, rising, falling, long rise, short rise, long fall, short fall, or the like. This is a more difficult exercise. One which is still more difficult is to have the student take a sheet of paper, after the teacher has carefully arranged his inflexions by number, mark them as they are given by him. The teacher can then collect the papers and in this way he can examine the ear of everyone.

Everyone will be led to wonder why it is easier to repeat an inflexion after another person than to name the inflexion or to mark it on paper. It is because in repeating it after another we obey our instincts, but in naming it or marking it down we get into a reasoning attitude of mind about it, allow doubts to enter, and are thus more open to error.

Let the teacher start an inflexion on a great variety of pitches, making wide and sudden leaps, and have the students follow him, or name them "high, short rise," etc. In the practice of such exercises the attention of the mind will be directed both to the inflexion and to the variation of pitch. The teacher should gradually shorten the inflexions, first without varying them essentially, then making a sudden leap, giving a short rise from a low pitch or a short fall from a high pitch. The student will take the direction of the interval, and will often carry it over unconsciously to the inflexion. He can follow the teacher with his voice, but the difficulty is in naming the inflexion. These are interesting and helpful even to persons with good ears. This exercise can be made very difficult, but it must not be made so at first. Occasionally, easy exercises must be used, especially to encourage and lead on those students with poorer ears. The difficult exercises should be introduced gradually. The student must be led to have confidence in his ear and to recognize the necessity of trusting it.

Another exercise is to use an instrument and follow its notes with the voice. Listening to good music, especially if it is vocal, will also aid. The student should observe and mark the inflexions made in conversation or by speakers, public readers, and actors, and be able to record any given inflexions or peculiarities of utterance or speech and even to mark them down.

It is the custom of a great many teachers to train the ear by means of circumflex inflexions. While these are helpful to healthy ears, it must be understood that by their means the student should be made sensitive, for the most part, in order to avoid them.

Choose a simple sentence from conversation, or from any book at hand or short poem. Read it in a great many ways, correct and incorrect, and have the students mark upon a sheet of paper the main inflexional characteristics of each rendition. It is well also at times to mark a sentence beforehand in a certain way, and have students follow the marks. Many phrases should be given so as to furnish a great variety and slowly to awaken the instinctive sense of the meaning of inflexional form.

Exercise 75.
Sense of Vocal
Form.

George never saw his brother James.

Upon the valley's lap the liberal morning throws
A thousand drops of dew, to wake a single rose.
Thus, often in the course of life's few fleeting years,
A single pleasure costs the soul a thousand tears.

José Rosas.

Should we train the ear by song or by speech? By both. I have met singers whose ears for music were good but for speech poor. I have also known many who have given great attention to inflexion in speech who had poor ears for song. The ear should be trained in both directions. Those who are to be singers need both kinds of training and so do those who are to be speakers.

III. THE SENSE OF QUALITY.

Not only should the ear be trained to detect the slightest variation of pitch, but also to realize combinations of primary and secondary vibrations or the elements which constitute the beauties or faults of tone independent of change of pitch.

The sensitiveness of the ear to qualities must be greatly improved. The attention of everyone, especially of children, should be directed to beautiful sounds in nature, such as the murmur of brooks, the wind among the pines, the tones of the turtle doves, or of the various thrushes, the joyous call of the robin. Children should be led to observe the difference between the tones of various instruments, especially of the violin and the aeolian harp. Even the power to detect the difference between two pianos or two violins should be developed.

Hardly anything adds more to the joys of life than the sensitiveness of the ear to the winds, the waves, the storms, and all of nature's tones from the beautiful love song of the toad to that of the bobolink.

How far does the lack of beautiful sounds affect the imagination and feeling of people? It is an interesting question in culture which has not yet been fully investigated. Shakespeare, whose ear was trained by long contact with nature and men, has recorded the importance of music in words which have often been quoted.

The man that hath no music in himself,
Nor is not mov'd with concord of sweet sounds,
Is fit for treasons, stratagems and spoils:
The motions of his spirit are dull as night
And his affections dark as Erebus:
Let no such man be trusted.

"Merchant of Venice" **Shakespeare.**

Paradoxical as it may seem, everyone should be trained to hear silence. The appreciation of absolute stillness is one of the difficult things. In the lonely cave we hear the noise of the circulation of our own blood through the ear. Going away among the hills and woods should be everyone's duty, if for no other reason than that the ear may become rested from the noise and jars of the city. In the education of feeling, each one should come into acquaintance with beautiful music and praise, until "beauty born of murmuring sound shall pass into the face," and also into the voice.

The ear must be trained to higher discriminations.

Simply recognizing the beauty of a pure tone will lead to the making of better ones.

The last difference, however, to be detected will be the true and the false in our own voices. As an aid let each one observe carefully the most charming voices in society. It will help also at times to put a disagreeable and an agreeable tone in direct contrast. The most helpful of all exercises is to endeavor to express adequately the most ideal and exalted poetry.

Specific exercises can be given for dullness of ear in the recognition of qualities. These especially should be given to students whose voices are throaty, nasal, hard, or cold. The former set of exercises will chiefly help those who are monotonous, and aid in giving that variety which is characteristic of conversation. The two, however, generally go together.

Exercise 76. Sense of Vibration.

Among the exercises adapted to develop a sense of tone color are especially individual words taken from different poems, such as the word "come" (exercise 68). Others can be easily arranged, such as the exclamation "ah" or "oh" expressing different emotions. Two poems may be rendered widely different in contrast. I have found also one of the most potent is to take some sudden transition, and have the student observe not only the great change in pitch and in movement, but also in the very color of the tone.

Tears, idle tears, I know not what they mean,
Tears from the depth of some divine despair
Rise in the heart, and gather to the eyes,
In looking on the happy autumn fields,
And thinking of the days that are no more.

Fresh as the first beam glittering on a sail,
That brings our friends up from the under world
Sad as the last which reddens over one
That sinks with all we love below the verge, —
So sad, so fresh, the days that are no more.

"Tears, Idle Tears" Alfred Tennyson.

XVIII. SONG AND SPEECH

In the phenomena of variation of pitch or the functions of the vocal bands, we observe two distinct modulations which seem to be widely separated. They are those of speaking and of singing.

These functions should be carefully distinguished from each other. The difference between them seems so great that many talk of "the speaking voice and the singing voice," as if the two resulted from different mechanisms. This is not true. As Lamperti used to say, "we do not have two voices, a singing and a speaking voice, but one voice which we use in singing and speaking." The difference between its use in singing and in speaking is, after all, in its elemental difference of modulation, quite simple.

I. ELEMENTAL VOCAL ACTIONS IN SINGING AND SPEAKING.

To understand adequately the difference between the actions of the voice in speech and in song, let us compare carefully the primary elements of each.

In song successive sound waves, during the emission of the tone, are of the same length, while in speech, the length of the successive sound waves, is constantly varying.

Change in the length of sound waves, that is, of pitch during the emission of tone, is called inflexion. This primary element in speech is practically never heard in song. A sound given on one pitch, that is, with the successive sound waves of the same length, is the fundamental element in song, this is never heard in natural speech.

How can phenomena so widely separated in human art result from such a slight difference?

In song a note may be long or short. This is also true of an inflexion in speech, but the effect is entirely different. They express totally unlike actions or conditions of mind. An inflexion has modulations not possible to a note of the voice in singing; it may be rising or falling, gradual or abrupt, crooked or straight. None of these have any analogy in the actions of the voice in song. A song can be indicated by a score; hundreds may sing a melody in concert, the director bringing it forth by training them and making such modulations as change of time and degrees of force. All these elements are few compared with speech, and speech tones have no objective symbols or score. In song the voice changes suddenly from one note to another causing what is called an interval. Similar intervals are also present in all conversation. In fact, a change of pitch between successive words and inflexions, which is a change during the utterance of the vowel itself, constitutes the chief element of naturalness in speech.

Again observe the difference in pauses. Speech has a vast number of them. The more earnest the speaker, the more he pauses for the reception of what he is going to say; and we also pause freely for emphasis. In song the pause is rare; the use of tones is continuous. Breath by the singer must be taken instantaneously, quickly, and in a way that will be least observable; in speech the taking of breath is always co-ordinated with the reception of an impression by the mind. Possibly this should be the case in song, but there is less occasion for the reception of an impression in this, since it does not express individual ideas discriminatively as does speech.

Those who try to improve speech by definitely measuring by musical intervals determining the length of the inflexions always make speech mechanical. While every modulation or its variation has a definite meaning which must be regarded, it is not studied in order to make it fixed, or to set up the modulations of one person as the standard, or to teach inflexion by imitation.

Elocutionists have also endeavored to mark by a series of mechanical signs all the phenomena of speech. Many teachers have contended that it was possible to indicate modulations of voice in speech as definitely as in song.

Such a view entirely overlooks the specific differences between the objective character of the art of song and the subjective and personal nature of speech. A little observation will show this difference.

Speech is free, even the directions of inflexions cannot be fixed by rule, to say nothing of the variations in length and degrees of abruptness. A sentence may be spoken often, either with rising or falling inflexions, and while there will be a difference in meaning, the sense of the words is not perverted. Variations in length and abruptness may be infinite, without changing the thought, but indicating only degrees of earnestness or control or emphasis. Speaking is less mechanical and artificial. Subconscious thoughts, imaginations, and feelings must dominate it. It is the language of instinct, and its development requires that its primary character shall in no way be changed.

How can all the most complex phenomena of speech be developed? By finding and exercising its fundamentals. As in all other phenomena, we find a few essentials. Training, to be effective, as already indicated, must always be directed to the development of elemental actions. These are the basis of naturalness.

Exercise 77. Thinking and Feeling in Song and Speech.

The difference between song and speech should be realized by the student. The instinctive feeling of the difference is illustrated by the following poem, as the speaker expresses his own ideas and when he quotes and tells what is in the song. It is difficult to explain the contrast in words, but the inflexions and the intervals are longer and change more abruptly in one part while in the other they are more gradual and regular. The color of tone especially suggests something of the sustained feeling of song. To my mind there is a difference here which is deeper than imitation. To sing literally the song as some public readers would be inclined to do would spoil the poetry.

I heard a soldier sing some trifle
  Out in the sun-dried veldt alone;
He lay and cleaned his grimy rifle
  Idly, behind a stone.

" If after death, love, comes a-waking,
  And in their camp so dark and still
The men of dust hear bugles breaking
  Their halt upon the hill,

" To me the slow and silver pealing
  That then the last high trumpet pours
Shall softer than the dawn come stealing
  For, with its call, comes yours! "

What grief of love had he to stifle,
  Basking so idly by his stone,
That grimy soldier with his rifle
  Out in the veldt, alone?

"I Heard a Soldier" **Herbert Trench.**

Sing also some familiar song and then read it and endeavor to give the same feeling. Observe the difference in the mental and emotional action as well as in the expression.

'TIS THE LAST ROSE OF SUMMER.

'T is the last rose of summer left blooming alone;
All her lovely companions are faded and gone;
No flower of her kindred, no rosebud is nigh,
To reflect back her blushes, to give sigh for sigh.

I 'll not leave thee, thou lone one, to pine on the stem:
Since the lovely are sleeping, go sleep thou with them.
Thus kindly I scatter thy leaves o'er the bed,
Where thy mates of the garden lie scentless and dead.

So soon may I follow, when friendships decay,
And from Love's shining circle the gems drop away!
When true hearts lie withered and fond ones are flown,
Oh! who would inhabit this bleak world alone?

Thomas Moore.

II. SHOULD SPEECH AND SONG BE STUDIED TOGETHER.

Students in every phase of art should become conscious of other arts, especially those close akin to the one they are studying. A man of culture is one who can appreciate the point of view of every art. Each art gives a distinct point of view, says something no other can say. The mental actions are different; the cause is different. All the arts are modes of expression; hence, they are akin; they are founded upon the basic expression in living speech.

Especially do we find help in comparing speaking with singing. "Music," says Harry Collins Deacon, "does precisely what words do not do. It represents a state of thought and feeling, more or less continuous, awakened by the statement of facts — a brooding over what has been said after the words are supposed to have ceased. Hence the propriety of prolonging syllables and repeating words, which the cynically disposed are often inclined to ridicule as opposed to reason and common-sense. This inclination to ignore the high office of music (that of expounding what passes in the mind and soul) is one great cause of the frequent tameness of English singing; and this same tameness it is that in reality makes singing at times ridiculous and opposed to reason and common sense. And if this higher view of music in singing is not to be taken — if all that is to be looked for is a rhythmical tune — then by all means let it be played upon an instrument, as the intonation will be safe, provided the instrument be in tune; and the head may nod, and the feet may tap, the ear will be tickled and the soul unruffled."

Here we have a suggestion as to the degradation of singing in our time and it is similar to that which has degraded elocution. The singer looks upon his work as a mere technical performance like a mechanical instrument. Elocutionists too often try to do the same with speech. The remedy for these defects is to find the mental cause of speaking and singing. Speaking reveals the discursive intellect, the sequence of the mind in thinking and feeling, the successive realizations and impressions. Song reveals the deeper mood. As painting is an art which demands intensity of gaze and may reveal a whole situation, and even a whole age, by one simple scene, so song reveals the deep feeling or realization of a situation. Words must move on and leap by a sudden transition, but song is the staying of the mind upon a scene with feeling too deep for words. Impressions succeed each other, but they must do so very slowly.

Accordingly, speech in one sense is more subjective and song more objective. Speech is more intellectual; song more emotional. The objective form in song is more pronounced, more observable, because it embodies a less observable truth. From the psychological point of view they marvelously complement each other; from a technical point of view they also throw light upon each other. Both of them must be improved by stimulating the cause. The student of singing must come into a conscious realization of the artistic point of view of his art. Few do this. Few study enough into poetry and literature and realize the point of view of lyric poetry which is closest to song of all verbal languages. The student of speaking must also realize this lyric point of view, the importance of the individual impression. While he must speak and repeat a succession of impressions, each must be a true impression, and the weakness of most speakers is not merely in the lack of contrast of different impressions but more in a failure to realize deeply the depth of the individual impression. A right study of song will greatly aid him in discovering the possibilities of deep impressions.

Hence the teacher of speaking must know song. He must not accept the narrow conception that speech is noise. It may be the sublimest music, for sound is musical in proportion to the regularity of its sound waves. Certainly there can be regularity in variations even in inflexions. Professor Jebb says in his "Attic Orators," that the noblest music he can imagine is Demosthenes's "Oration on the Crown."

There is need of a triple division if we are to accept the narrow definition of music. Certainly ignoble speech is noisy, but the more pleasing speech is the less there is of noise and the same is true of song. In the development of song there is a certain objectivity that furnishes helpful standards to the teacher of speaking. Comparison of the two will enable him to realize a higher ideal of speech.

Nor must the teacher of song be tempted to think that because his art is so objective it is merely mechanical. It is natural and spontaneous. Darwin thought in the evolution of nature that song was first; Herbert Spencer regarded speech as first and song as the result of emotionalized speech. We need not enter into a discussion as to who was right, but certainly both song and speech are natural. A little child will croon and crow in great pleasure over the sight of a red ball suspended from the ceiling. Children invent what is practically song by repeating over and over a phrase of their own invention. The tune, words, and thought are spontaneous.

Men like M. Jourdin must discover that they speak in prose. The development of artistic prose always follows that of poetry for the reason that the latter has a definiteness of form. Prose is more like speech and brings us closer to the individual heart; but no one will contend that beautiful prose is not a phase of art.

In the study of song we find that tone color is often ignored as the result of spontaneous effects of feeling upon the secondary vibration of the voice. The same spontaneous modulations of the overtones is also found in speech. Possibly they have greater freedom in speech than in song. But there are modulations of inflexion, changes of pitch and movement which in speech are absolutely free responses to mental actions.

Singing is the using of the human voice as an instrument co-ordinated with words, expressing exalted feeling and sustained emotion, while speech is more intellectual and reveals more of human experience.

It is most astonishing that many seem to regard the voice in speech as unworthy, if not incapable, of improvement. Not only is the training of the voice for speech in itself as important as in song, but improvement even in song depends to a great extent upon its right use in speech. By attending to both speech and song in training, the voice can be far more adequately and speedily improved.

There is no way, however, to compare the two arts, and certainly the lover of one must never disparage the other. One is strong where the other is weak. Both can express the highest flights of human imagination and the deepest throb of human feeling.

So intimately are the two associated that they should never be completely separated. Among the Greeks everyone was taught to sing. This is sneered at even by so able a scholar as Professor Mahaffey. That a great scholar should fail to realize the naturalness of song is a proof of the inartistic character of our age. Song is as natural to the vocal cords as speech. It is as natural a mode of expressing feeling. One child will be much slower in learning to speak than another, and the same is true in song. There is a difference of faculties, powers, and quickness in response to teaching, but this is as much in one case as in the other.

The chief and almost the only means of finding the real nature of expression must be in speech. The smile, the simple inflexion, and the spontaneous variation of pitch, — in these are found the great laws of naturalness in expression. If the singer in his more objective and accentuated art has not found the real control or command of his expression in speech, how can he master expression in the art of song?

This is often forgotten. It is through a study of man's action and speech in everyday life, that the basis for expression is found. Song would be less artificial if the student should master the real nature of expression.

The term "expression" in any art is more or less borrowed from such a simple natural expression as a smile. Without the mastery of the spoken word there can be no true expressiveness in singing, music, painting, or sculpture.

In the improvement of the voice attention should be given to both speaking and singing, because though the faults are not the same, nor the modulations, yet the management of the breath, the fundamental conditions of tone apply to both. The study of song brings us into consciousness of certain conditions which are important not only to song but to speech. The study of the voice in speaking gives a similar help to singing. When a person begins to sing he feels as a rule that he must make a far greater effort. He must have more breath; he cramps his face and his whole throat, and this makes the tone labored. At my first lesson with Mr. William Shakespeare, he took up a book and handed it to me, saying, as he struck a note: "Repeat this sentence as you would in talking, only keep this pitch."

The chief element of song differing from speech is the fixing of the pitch. The student must endeavor to speak or sing words with all the ease of conversation. He can hardly be reminded too frequently that all unnecessary constrictions of the forehead and face have a reflex influence on the throat and must be eliminated if the voice is to improve. On the other hand, in song, on account of the sustaining of the tone on one pitch, the right action of the breath, especially its sympathetic retention, can be better studied and developed. While in speaking we may observe the naturalness of breathing, yet to make this breathing conscious and to accentuate it and increase the amount, the simple prolonging of the tone is one of the most effective methods.

In song, on account of the sustaining of the tone, the quality may be observed more carefully. The pupil may be made conscious of its purity or impurity. Nasality, throatiness, flatness, and the constrictions that cause these faults, may be observed.

In speech the subconscious, spontaneous, and involuntary actions of the voice can be better studied. In recent years the best teachers of singing continually refer to the actions of the voice in speech in order to find the real voice of the pupil, the actual faults and the tendencies to ideal expression.

The isolation of song from speech is apt to make the singer cold, mechanical, or careless in articulation. One who has never studied singing fails to recognize the importance of retention of the breath, right vocal quantity, and freedom and openness of the tone. He hardly knows his voice who has not compared its action in speech with its tones in singing.

The common neglect of speech is seen in the fact that a man will say he cannot read a hymn or the words of a song on account of the tune running in his mind. This is to confess that there is no mental realization of the melody in speech. Before a person can sing a great song he should put the words and the thought into the melody of speech. This will insure his having the right expression. Such views only show the great neglect of the true art of song as well as of speech.

XIX. AGILITY OF THE VOICE IN SPEAKING

"All art," said Goethe, "must be preceded by a certain mechanical expertness." There are many phases of this facility in the artistic use of the voice. That form of expertness most easily distinguished by the majority of people is the power to vary the pitch. So important is this in voice modulations that it is necessary to develop facility in performing this primary function. In all training the development of the responsive conditions of all parts to the mind must be considered fundamental.

A condition favorable to activity is synonymous with life. Since all expression is activity of being in action of body, a condition of any agent favorable to movement, modulation, or variation is also favorable to expression. To establish such natural and flexible conditions is one of the chief aims of training.

The lack of possibility of modulation in the voice which is first noticed is a certain stiffness or limitation of the possibility of changing pitch.

The causes of rigidity and unresponsiveness on the part of the organism are innumerable. They may be due to health, climate, and environment, to conscious or unconscious imitation, to repression, wrong actions of the mind, lack of will, absence of self-control, or to want of imagination and feeling or the right development of the higher nature.

Accordingly, the first phase of responsiveness to be discussed will be agility. Agility may be defined as facility by any agent to discharge its elemental actions.

Without a responsive condition of the organism the actions of the mind may fail to modulate the voice.

The proper place to begin the study of agility and development is in natural speech. The everyday modulations of the voice in conversation show, in almost everyone, marked conditions of flexibility.

The chief characteristic of natural conversation is a constant varying of pitch. The voice leaps freely in talking from word to word. Every word is upon a different pitch, and the variation seems almost lawless. Yet every one of these modulations, every variation of pitch, as well as inflexion, has a psychological cause.

A study of conversation also leads us to realize that when a person speaks chaotically, making his voice change pitch by mere volition independent of the free variation of the mind there is a violation of naturalness. Such chaos, however, is rare. Even children vary the pitch of the voice in direct response to the discriminative action of the mind. Variation of ideas so directly causes change of pitch that the latter becomes subconscious if not involuntary or spontaneous.

The most common fault in all speaking is monotony, a speaking on the same key, and losing the free and flexible variations of the voice. This is found sometimes in conversation, but frequently in reading and public speaking.

Why are we natural in conversation, while in public address, reading, or reciting, we are apt to lose all the flexible variations of conversation? It is because in the former case we are genuinely thinking, while in the latter we are calling words. Remembrance of ideas and words does not awaken the creative actions of the mind. The mind drifts from phrase to phrase, or from word to word and does not first concentrate or receive the connexion and then choose the word that will represent this. Hence the voice is not directly modulated by the processes of thinking and feeling. In conversation the mind is freely concentrated upon successive ideas. Impression precedes and determines expression. The mind associates one idea with another, makes discriminations and contrasts between ideas, and performs a great many variations in point of view, to say nothing of the different emotions and emotional responses,which directly cause voice modulations.

In all conversation we can distinguish two classes of variation in pitch: one consists of intervals between phrases and words; the other of inflexions or variations of pitch in uttering the accented vowel of a word. Changes of pitch between phrases and words mark mental changes in passing from one object of attention to another; inflexion, or a bend of the voice upward or downward upon the accented vowel of the word, reveals the logical connection of the ideas with each other.

I. INFLEXIONAL AGILITY.

The most common phase of agility in speech, and one of the first to receive attention, is inflexion. Inflexional modulation is a universal characteristic of all speech.

In general, we may say that inflexion reveals the attitude of the mind. It indicates question or answer on the part of the speaker. It shows the relation of the idea he is uttering to other ideas or to the listener, and gives words definiteness of value in relation to other minds. It also reveals the depth of earnestness or degree of seriousness on the part of the speaker.

One of the first steps in the study of inflexion is to recognize the complex variations of everyday speech. Although universal and a part of ordinary conversation, the presence and meaning of these inflexions are often overlooked.

Take a short sentence, such as "John never said that," and indicate a variety of meanings. For example, accenuate " John " so as to suggest that someone else may have said it; then the word " never " in a way to indicate that John could not have said it, though someone else may claim he did. So inflect " said " as to indicate that John might have looked it or wanted to say it but did not. Give such an inflexion to " that " as to suggest that though he did not say this he said something else.

Examine carefully the way such sentences are spoken, or the modulations necessary to express the specific point or meaning in each case. To speak such a sentence as a whole, without inflexion, merely presents words as words. Such changes in meaning as above suggested, are expressed, as a rule, by giving a long falling inflexion to the different words in succession. That is, the centre of attention is changed in the different renderings.

The student should take many simple sentences, such as " May I come in? " " He never saw me at his house," and vary them as naturally as in conversation. This trains the ear, and makes one conscious of the language of inflexions.

In speaking such a sentence the inflexions may be kept exactly the same while varying the tone color. This will show still greater variety of meaning.

Every change in thought or attitude of mind causes a change in the inflexion. The least modification or variation expresses a new meaning. The most decided change is in direction. This can be indicated in the above illustrations by keeping the natural inflexion at the same spot. A change from falling to rising will then enable one to realize the meaning of direction of inflexion.

No rules founded on grammatical relation of words, or phraseology, explains the meaning of inflexion. It is a distinct language and its presence is due to a definite attitude of the mind of a thinker. It reveals primarily the processes of thinking and is a sign not a symbol.

If we compare speech with song, inflexions mark the chief difference. Only a little observation shows the voice to be far more flexible in conversation than in singing. Sustained tone conditions, with definite relation of intervals according to a melody or tune, may reveal the deeper moods and feelings, but all the subtle distinctions, contrasts, and flexible variations of the mind in thinking are revealed by inflexions of speech.

Mastery of inflexion is the basis of naturalness and effectiveness in speaking. Its importance as an element of motor training, as an aid to securing even agility in song, has not been rightly estimated.

The student will find material for serious study in the attempt to realize the meaning of the simplest inflexions of a child. The psychology of this instinctive language, the explanation and conscious realization of the inflexional variations in revealing the value of every word in the true interpretation of some poem, or even sentence, require careful, persevering observations. Mastery of it, however, will give command of voice, self-knowledge, and a better method in thinking.

Exercise 78. Inflexion and Thinking — I.

Another means of distinguishing the presence of inflexion, is to render words which are merely the echo, imitation, or representation of some sound. It is better to use these at some point in direct contrast with a phrase that expresses an idea in the usual way. Render, for example, as adequately as possible, the following lines, and note the great difference between the words supposed to represent the bells of the flowers in the first and the hammer in the second and the following phrases. "Ting-a-ring-ting" is given on one pitch as simply imitative of the sound of a bell; while the other words express a thought. In the imitative words "Clang, clang" there are no inflexions, but whenever words express a process of thinking, inflexions are absolutely necessary.

Hark! hark! to the robin; its magical call
  Awakens the flowerets that slept in the dells;
The snow-drop, the primrose, the hyacinth, all,
  Attune to its summons their silvery bells.
Hush! ting-a-ring-ting, don't you hear how they ring?
They are pealing a fairy-like welcome to spring.

Clang, clang! the massive anvils ring.
Clang, clang! a hundred hammers swing.
From "The Song of the Forge" Not known.

While the discussion of these, and especially their meaning, belongs to vocal expression, it is necessary in developing agility of inflexions to understand something of their variety and character.

Inflexions have seemingly innumerable variations, but we can divide these into four classes. They vary in direction, length, degree of abruptness, and degree of straightness. Every one of these has an important meaning. Direction is the most notable element or variation of inflexion. In uttering a vowel the sound waves may be shortened during the emission of the sound, thus causing a rising inflexion or they may lengthen during the production of the tone. This is called a falling inflexion. The rising of the voice implies suspense, incompleteness, formality, or indifference; the falling inflexion indicates conviction, assertion, certainty, or that a word stands for a central idea.

Exercise 79. Inflexion and Thinking — II.

In the following lines from Whittier take a definite attitude of mind toward each phrase, or central idea in the phrase. For example "The night" may be given with a decided rise indicating that something important is coming in answer to a question, "What about it?" The "mother of the day" will be given a decided fall on the central word "day," or "night" may be given a decided falling inflexion, implying a definite assertion, or a demand for attention. In this case "day" will also receive a decided fall but upon a different pitch, and so on, through the whole extract. Emphatic inflexions will be introduced which are different from each other.

The night is mother of the day,
  The winter of the spring;
And ever upon old decay
  The greenest mosses cling.
Behind the cloud the sunshine lurks,
  Through showers the sunbeams fall;
For God, who loveth all His works,
  Has left His hope with all.

Whittier.

In the third line from the last of the following notice the long, decided, rising inflexion, as if with astonishment and surprise. This, however, may be given with a decided falling inflexion. Whether all words here are rising or all falling, or part rising and part falling, must depend upon the attitude of the speaker's mind, but decided inflexions of some kind are necessary.

MY GARDEN.

A garden is a lovesome thing, God wot!
    Rose plot,
  Fringed pool,
Ferned grot —
    The veriest school
    Of peace; and yet the fool
Contends that God is not —
Not God! in gardens! when the eve is cool?
  Nay, but I have a sign:
  'T is very sure God walks in mine.

T. E. Brown.

A prominent teacher once said to me, " In every clause there are fifty modulations of inflexion. They can be improved only by imitation. There is no way by which we can give them objective representation."

If we carefully examine the phenomena of everyday speech in the light of the principles here unfolded, we find that while there may be fifty modifications of inflexion in every clause, most of these are merely accidental; while only a few fundamental or necessary actions need to be mastered; and the more definitely these are emphasized the better the inflexion, the more dignified the passage. The greater number of these accidental modifications come from sarcasms and various undignified, patronizing insinuations. Every one of the accidental elements tends to be circumflex and to lack in dignity.

With deaf mutes there must be adopted various marks and expedients to indicate to the eye or the sense of touch or of muscular resistance, what the voice does. Every student should take as definite and dignified an attitude as possible. He should vary the direction of inflexions with every successive phrase; give his central words with long and salient inflexions; and above all keep them as straight as he possibly can. Not only should their fundamentals be emphasized, but many of the accidentals should be eliminated. The true accidentals in inflexion are degrees of length, abruptness, and frequently direction. These should be the spontaneous modulation of the personal feelings and thought, but these will be improved indirectly if the consciousness and the will are definitely directed to the practice of the fundamental elements of inflexion.

Exercise 80. Conversational Form.

What are the fundamental modulations of inflexion in speaking some natural sentence? Note in the first of the following the long, falling inflexion necessary on the word "life." Notice that in the second on the word "Julius" there may be either a long falling or a long rising inflexion. The length of this inflexion of the central word is the most fundamental element. The other inflexions of the sentence are subordinate to this. That is, before this word they are all short, rising with changes of pitch between them. All following this if it is falling are also falling but short and on a lower pitch, while if this central one is rising they are also rising, but short and on a higher pitch.

> The good shepherd giveth his life for the sheep.
>
> **St. John.**

> Did not great Julius bleed for justice' sake?
>
> **"Julius Caesar"** **Shakespeare.**

These elements constitute the fundamental characteristics of naturalness in English speech and in all work for the development of inflexion they should be kept in mind. While their study belongs to vocal expression it is necessary to realize them and often use inflexions as a means for the development of voice conditions.

Render this humorous story by John G. Saxe, making very long strong inflexions upon the central word of each man's opinion. Observe the importance of inflexion in revealing the argument of this or any passage.

THE BLIND MEN AND THE ELEPHANT.

It was six men of Indostan to learning much inclined, who went to see the Elephant (though all of them were blind), that each by observation might satisfy his mind. The First approached the Elephant, and, happening to fall against his broad and sturdy side, at once began to bawl: "God bless me, but the Elephant is very like a wall." The Second, feeling of the tusk, cried: "Ho, what have we here so very round and smooth and sharp? To me 't is mighty clear this wonder of an Elephant is very like a spear!" The Third approached the animal, and, happening to take the squirming trunk within his hand, thus boldly up and spake: "I see," quoth he, "the Elephant is very like a snake!" The Fourth reached out his eager hand, and felt about the knee. "What most this wondrous beast is like is mighty plain," quoth he; "'T is clear enough the Elephant is very like a tree!" The Fifth, who chanced to touch the ear, said, "E'en the blindest man can tell what this resembles most; deny the fact who can, this marvel of an Elephant is very like a fan!" The Sixth no sooner had begun about the beast to grope, than, seizing on the swinging tail that fell within his scope, "I see," quoth he, "the Elephant is very like a rope!" And so these men of Indostan disputed loud and long, each in his own opinion exceeding stiff and strong, though each was partly in the right, and all were in the wrong!

John G. Saxe.

In vocal training the fundamental aim must be the establishment of inflexional agility. Inflexion is such a primary function of the voice that it affords necessarily one of the fundamental exercises in vocal development. At this point in the development of facility in changing the length of the sound waves all the primary conditions of right voice production need to be reviewed, to be re-emphasized and more definitely mastered in the practice of inflexions.

What are the special conditions of voice that cause a good inflexion? Careful study of the action of the voice in producing one truly serves to show us anew the voice conditions shown to be fundamental.

Let the student make a simple rising inflexion, with "Ah," and endeavor to make it straight and firm, decided and long, and he will at once find the necessity of activity in the middle of the body, relaxation of the throat, an easy, sympathetic retention of the breath, leaving the vocal bands free to co-operate with the breathing.

A great variety of exercises should be arranged and faithfully practiced. Initiate inflexions, making them rising and falling, long and short, abrupt and gradual, but always straight and with a definite accentuation of the primary conditions. They should be practiced also with various consonants before vowels and with various words.

Technical exercises with inflexions should be as faithfully and earnestly practiced as sustained tones. Perhaps, especially by speakers, more attention should be given to inflexional initiation than to that on a fixed pitch.

The real action that produces the inflexion is in the breath. Though it is a product of the vocal bands, yet the energy and centre of the volitional action must be in the breath. The vocal bands act in co-ordination. The inflexion receives its strength and solidity from the retention of the breath. It cannot be free and easy without support.

Deeper study will reveal that inflexion is not a mechanical thing but the direct expression of an attitude of mind. It is impossible to develop inflexions properly without accentuating their mental cause.

Life is a leaf of paper white
Whereon each one of us may write
His word or two, and then comes night.
Greatly begin! though thou have time
But for a line, be that sublime, —
Not failure, but low aim, is crime.
Ah, with what lofty hope we came!
But we forget it, dream of fame,
And scrawl, as I do here, a name.

J. R. Lowell.

Exercise 81. Agility of Inflexion.

Development of inflexional agility must always be connected with the direct exercise of energy in thinking and true sympathy in feeling. Give a great variety of selections and give as definite concentration of mind upon each idea as possible, relating it at the same time to the listener and to what is supposed to follow or to precede. Take a definite attitude of mind toward an idea, simultaneous with each concentration. This will give definite direction to inflexion and will make inflexions the direct effect of thinking. Observe in all inflexional exercises that the vocal conditions are emphasized, especially support, that the inflexions are straight, long and definite, naturally varied and made with perfect ease.

Life is real! Life is earnest!
  And the grave is not its goal;
Dust thou art, to dust returnest,
  Was not spoken of the soul.

Henry W. Longfellow.

I cannot look upon the ocean and the mountains without loving them; and I am greater than they, because I can do so.

Come wealth or want, come good or ill,
  Let young and old accept their part,
And bow before the awful will,
  And bear it with an honest heart.
Who misses or who wins the prize —
  Go, lose or conquer as you can;
But if you fail, or if you rise,
  Be each, pray God, a gentleman.

"The End of the Play" **Thackeray.**

No one could tell me where my soul might be.
I searched for God, but God eluded me.
I sought my Brother out, and found all three.

"The Search" **Ernest Crosby.**

It is well also to contrast extracts expressing dignity with others full of sarcasm, colloquial triviality, double meaning, conversational ease or familiarity, or other attitudes of mind; that is, it is well to exercise straight and circumflex inflexions in contrast in order to avoid the latter or to employ them with care. In the following, for example, while making the older person dignified and intense, do not make the child undignified with too many circumflex inflexions. Express the difference in their character more by change in rhythm, pitch, and tone color.

THE ORACLE.

I lay upon the Summer grass.
  A gold-haired, sunny child came by,
And looked at me, as loath to pass,
  With questions in her lingering eye.

She stopped and wavered, then drew near,
  (Ah! the pale gold around her head!)
And o'er my shoulder stooped to peer.
  "Why do you read?" she said.

"I read a poet of old time,
  Who sang through all his living hours —
Beauty of earth — the streams, the flowers —
  And stars, more lovely than his rhyme.

"And now I read him, since men go,
  Forgetful of these sweetest things;
Since he and I love brooks that flow,
  And dawns, and bees, and flash of wings!"

She stared at me with laughing look,
  Then clasped her hands upon my knees:
"How strange to read it in a book!
  I could have told you all of these!"

"The Earth Passion" **Arthur Davison Ficke.**

THE COYOTE.

The coyote of the farther deserts is a long, slim, sick, and sorry-looking skeleton with a gray wolf-skin stretched over it, a tolerably bushy tail that forever sags down with a despairing expression of forsakeness and misery, a furtive and evil eye, and a long, sharp face, with slightly lifted lip and exposed teeth.

He has a general slinking expression all over. The coyote is a living, breathing allegory of want. He is always hungry. He is always poor, out of luck, and friendless. The meanest creatures despise him, and even the fleas would desert him for a velocipede. He is so spiritless and cowardly that, even while his exposed teeth are pretending a threat, the rest of his face is apologizing for it. And he is so homely, so scrawny, and ribby, and coarse-haired, and pitiful!

When he sees you he lifts his lip and lets a flash of his teeth out, and then turns a little out of the course he was pursuing, depresses his head a bit, and strikes a long, soft-footed trot through the sage-brush, glancing over his shoulder at you from time to time, till he is about out of easy pistol-range, and then he stops and takes a deliberate survey of you. He will trot fifty yards and stop again: another fifty, and stop again: and, finally, the gray of his gliding body blends with the gray of the sage-brush, and he disappears.

But, if you start a swift-footed dog after him, you will enjoy it ever so much — especially if it is a dog that has a good opinion of himself, and has been brought up to think that he knows something about speed. The coyote will go swinging gently off on that deceitful trot of his, and every little while he will smile a fraudful smile over his shoulder that will fill that dog entirely full of encouragement and worldly ambition, and make him lay his head still lower to the ground and stretch his neck farther to the front, and pant more fiercely, and move his furious legs with a yet wilder frenzy, and leave a broader and broader and higher and denser cloud of desert sand smoking behind, and marking his long wake across the level plain!

All this time the dog is only a short twenty feet behind the coyote, and, to save the life of him, he cannot understand why it is that he cannot get perceptibly closer; and he begins to get aggravated, and it makes him madder and madder to see how gently the coyote glides along, and never pants or sweats, or ceases to smile; and he grows still more and more incensed to see how shamefully he has been taken in by an entire stranger, and what an ignoble swindle that long, calm, soft-footed trot is.

And next the dog notices that he is getting fagged, and that the coyote actually has to slacken speed a little, to keep from running away from him. And then that town-dog is mad in earnest, and he begins to strain, and weep, and paw the sand higher than ever, and reach for the coyote with concentrated and desperate energy.

This spurt finds him six feet behind the gliding enemy, and two miles from his friends! And then, in the instant that a wild new hope is lighting up his face, the coyote turns and smiles blandly upon him once more, and with a something about it which seems to say: "Well, I shall have to tear myself away from you, but — business is business, and it will not do for me to be fooling along this way all day." And forthwith there is a rushing sound, and the sudden splitting of a long crack through the atmosphere, and behold, that dog is alone in the midst of a vast solitude!

S. L. Clemens. (Mark Twain.)

It is a real help sometimes in training the voice, as well as in vocal expression, to test the student's ear with the fundamental elements that are wrong in faults of melody.

The faults of inflexion are very important. They are so numerous that classification according to elements is difficult.

It should be noted that the worst of all faults is the elimination of inflexion from lack of definite thought causing monotony. Force without thought ends in loudness. Many speakers emphasize entirely by greater stress of voice. Though this has been advocated by books of elocution, it is an undignified and animal method of emphasis; it does not appeal to the intelligence, and wearies the speaker as well as his hearers.

Inflexion is a fundamental element of form, and this is always intellectual. The sense of inflexion introduces the power to reveal the higher and broader logical relations of ideas; it is a rational method and develops reasoning power on account of the fact that it is the fundamental language of thought.

Another fault close to the last is that inflexions are often too short, weak, and indefinite. Special work is needed in developing their length. It is one of the most important steps in agility to be able to make a long inflexion in different degrees of abruptness with great ease and freedom. It implies great facility in the vocal bands and their free action in co-ordination with the management of the breath.

Inflexions in everyday life, on account of earnestness, and the formality of men's relations with each other, may be short, though in business and in society their improvement brings success; but to make thoughts interesting to thousands, whether in the pulpit, on the platform, at the bar, or on the stage, necessarily demands that the inflexions be lengthened. The lengthening of inflexions demands greater control of breath, openness of the tone passage and improvement of all the voice conditions.

Minor inflexions, another fault, unfortunately common with emotional persons, those with sad views of life or those in poor health, imply a certain weakening analogous to the minor chord in music or chromatic scale.

These must be regarded as faults. Emotion is normally rendered by the modulations of the secondary vibrations of the voice, not by modulations of inflexions; when these are modulated to express feeling, weakness is the result. They may have any kind of color expressive of any emotion, but should be abrupt, long, and straight, even in the expression of most intense pathos. The struggle to control the feeling causes such inflexions.

Crooked or circumflex inflexions have also been considered a fault, though some have regarded them as a sign of naturalness. The many complicated turnings of the voice detected in the patronizing talk of some primary teachers, and of other people who speak to children, are undignified and silly. They weary the speaker and the child that is compelled to listen. They take all the weight from speech. Sometimes circumflex inflexions are due to wit and humor, though frequently accompanied by a kind of drawl; but the constant strain to be funny is a decided weakness. It is no sign of genuine humor, but is more apt to be the expression of sarcasm, and of that wit which is meant to cut. Genuine sympathetic humor and wit of the higher kind are not expressed by circumflex inflexions.

In general, it must be said that in proportion to straightness and directness of inflexion, even in familiar intercourse, is the frankness and sincerity of the speaker. "Let your communication be, Yea, yea; Nay, nay," may mean, "Let your inflexions be straight."

Another fault is a certain drawl. It is generally united to circumflex inflexions. It is to be corrected by definite work upon abrupt inflexions, and upon the attitude of mind. Unity and earnestness of purpose will help to eradicate it.

One of the best methods of correcting faults of inflexion is to render passages full of great dignity, such as the speeches of princes, kings, and queens in Shakespeare, or other characters in dialogue, giving them the dignity and weight which belongs to them. A student can often receive great benefit by producing a character which has noble qualities, in direct opposition to his faults. This furnishes a dramatic remedy for defects — one founded upon the principle of recognizing the mind as the cause of all true qualities, as well as effects.

Many other faults can be noted; but they disappear without any attention being paid to them if the primary and normal conditions are established. Every kind of misuse of the voice, it cannot be too often said, must be corrected by right use. The fault is always a mere sign of a deeper condition. Keep the mind upon the fundamental causes and responsive co-ordinations.

II. INTERVALLIC AGILITY.

Another element of variation of pitch — one common both to speech and song — is the interval, or change from one pitch to another. In song these intervals are definitely marked and regular, as has been shown; in speech they are perfectly free and vary infinitely in degree. They may be upward or downward, and of almost any extent. Yet though so free, they are full of meaning. A change in key is a most important element of expression in speech and song, and of naturalness in conversation.

The first step toward increase of agility in the making of intervals in speech should be the accentuation of mental discrimination or progressive transition of ideas.

As a means of doing this, select a few simple lines, and while definitely conceiving the picture in each clause, discriminate each successive image as widely as possible from the former one and express this variation by changing the pitch. Accentuate the pictorial action of the mind and especially the definiteness of the successive pictures, and especially the contrast of each with the preceding.

Exercise 82. Agility of Intervals.

The following lines, for example, may be given in the middle of the voice; or one line on a high and the next on a low pitch. Or the first may be given on a very high pitch, the next on a much lower one; then the next on a very high or a central pitch.

O larks, sing out to the thrushes,
And thrushes, sing to the sky!
Sing from your nests in the bushes,
And sing wherever you fly.
Not Known.

The direction of pitches amounts to nothing, the point being that there must be a change of voice with every change of the mind. It makes no difference whether the first clause is low or high. The only point to be noted is that if the first is high the second will be low; if the first is low the second will be higher. The direction of interval in speech is free from rules.

In singing, every note must be upon an exact key. The direction of the interval is the chief element in melody and must be definitely fixed. Such free modulation as is found in all natural speech is impossible in the art of song. It may be that the spontaneous and absolutely free character of intervals in speech is the cause of their universal neglect in all elocutionary methods.

All the elements of speech are free, but the length of the direction of the intervals in speech are most spontaneous. They indicate degrees of animation or excitement. The direction of the interval is of little consequence. Take, for example, and render with every possible change of interval some simple passage, such as this:

Sing loud, oh bird in the tree,
Oh bird, sing loud in the sky;
And honey bees blacken the clover seas,
There are none of you glad as I.
"In Blossom Time" Ina Donna Coolbreth.

The student should read such passages over in many ways, observing that all are perfectly natural and effective, but that when read along on one key the real animation and spirit of the passage is not interpreted. The intervals are the means of expression though perfectly free and without rule.

It is helpful also in the development of power to make intervals, to practice the starts in a peculiar way. Make each successive start short and the following one at a wide interval. The teacher may lead and give the intervals with extensive leaps in pitch. The starts may be given softly but with a decided accentuation, proceeding seemingly without any purpose to the widest extremes. This is also a helpful exercise in song. The teacher may extemporize a tune by the successive starts.

This exercise furnishes means for a progressive advance in the practice of starts. The principle of progression simply means, as has been shown, that each successive exercise should accentuate what has been done and at the same time add something. The first principle is thus being established while the student is mastering another step.

Students should also practice such an exercise alone, letting the voice leap freely from one pitch to another.

The development of intervallic agility is of infinite importance in speech. Its mastery is easy to one who will simply and definitely practice poetry, or emphasize the primary actions of the mind in thinking the simplest passage whether prose or poetry.

It is well for the student to practice passages with various degrees of animation, especially joyous and exciting passages, accentuating as much as possible the extent of the intervals as the means of expressing the animation. This causes freedom and ease in the use of the voice, establishes facility in preparation, flexibility of breathing and all the conditions of voice.

III. MELODIC AGILITY.

A study of conversation reveals the fact that inflexion and intervals are always found together. When one is accentuated, in nearly every instance the other must be increased. In accentuating one, we unconsciously emphasize the other. Inflexion and intervals are the two elements of what may be called speech form or melody.

If we note again the primary elements of English conversation, speaking some simple sentence such as "I saw your brother last night," we find that we not only make rising inflexions until we reach the word "brother," which has a falling inflexion, while the words following have also a shorter falling inflexion on a lower pitch, but also do we find intervals between the words which are also rising, including the one before the long fall on "brother," and those following the emphatic word have a downward direction. These intervals are also fundamental characteristics of naturalness in speaking English. They must be mastered with the inflexions as the primary elements of delivery.

Exercise 83. Preparation and Conversational Form.

We may give here an important advanced step in work for the actions preparatory to speech. We can combine the accentuation of the right taking of breath and openness of the tone passage with exercises for agility by extending exercise 45, counting in still greater groups. Take any number, for example eight, accentuating with a long falling or rising inflexion each of the numbers in turn, and subordinating all the other words: or take in the same way meaningless syllables, such as lä, lā, lē, lō, lo͞o, or the names of the letters of the alphabet. The exercise can also be practiced with rising inflexions.

In this exercise we may review and give additional and more advanced practice to all that has been previously observed in relation to preparation and release of conditions of breathing with each group, making each an individual impression. The varied length of the inflexions and the union of these with intervals can also be practiced, and given with degrees of emphasis, lengthening the central inflexions. Subordination may also be emphasized.

Now, in such an exercise, what is the especial difficulty? At first the inflexions will seem most difficult, but later, the teacher will find the greatest difficulty in intervals. There will be a tendency to give the words before the emphatic one on a level and to drop upon the emphatic word, then rising again to give the remaining words on the same pitch.

The teacher by accentuating this can introduce several amusing speech tunes common among emotional speakers without intellectual culture. The first of these tunes is a drop upon the emphatic words.

Independently of such abnormal tunes, however, it may be stated that almost everyone fails in the co-ordination of the emphatic parts. The primary element of conversational form consists not only in accentuation of the central idea but in co-ordination by shortening the inflexion and opposing the intervals of the subordinate and emphatic parts.

The teacher should carefully illustrate and accentuate this and perseveringly practice it. The practice may be easily done in class but the teacher should observe carefully whether everyone is rightly making the change.

The number should be extended and the accentuated syllable or number changed with each successive repetition of the exercise. It is important also to introduce an emphatic pause after the central idea.

Subordination is an important element in vocal form. An excellent test of agility is to make definite short inflexions on a low pitch in subordination to an emphatic one sustaining the conditions and openness of the tone passage and other vocal conditions.

IV. RANGE OF VOICE IN SPEECH.

Not only should there be practice of conversational form by working upon specific phrases or short sentences, but these phrases must be separated by still wider changes of pitch. Not only should the vocal form in each individual phrase be accentuated by longer inflexions and intervals, but one phrase should be put on a high, another on a low, pitch. There should be an extension of all inflexions and intervals in the giving of some strong paragraph.

Légouvé illustrated the range of voice by comparing it to an army. " An army " he says, " is composed of infantry, cavalry, and artillery. The cavalry is used for a quick dash; the artillery for a heavy charge; but the main dependence must always be upon the infantry."

Similarly in the voice, an exalted or excited dash of the thought calls for a high pitch; a low, concentrated, weighty, or intense presentation of an idea requires a low pitch, but everyday conversation uses the centre of the voice. The same is true in all passional or excited use of the voice.

Consistent with this the student should practice passages that will bring in his whole voice. The complete army is composed of all three divisions, and so the whole range of voice must be used in natural emphatic speaking. We can see this also in the most colloquial passage. Conversation is made more animated and delightful by width of range. The length of inflexion may not necessarily be increased nor the conversational form of each phrase greatly extended; while at the same time the wide intervals between phrases is restful, helpful, and expresses free and spontaneous animation of the mind. These many steps all need definite practice, but they can be combined and co-ordinated in expression.

Any dignified passages of simple prose or verse, such as the narration of a story, may be made a means of practicing this most important but intellectual element in vocal expression.

Exercise 84. Emphasis and Range of Voice.

Passages of great earnestness and intense passion should also be included. Attention should also be given to direction of inflexion and extent of intervals but especially to the fact that every clause should be put in a different part of the voice. Thus, the entire range of the voice can be employed. It may be well also in the illustration of this to give a passional extract with loudness and then with extension of range, and to observe how much more dignity and intensity of excitement is suggested by range than by volume. Passages of simple dignity may also be taken, and made earnest, salient, and emphatic by range of voice. Range of voice and intensity are always dignified modes of expression.

Calm Soul of all things! make it mine
  To feel, amid the city's jar,
That there abides a peace of thine,
  Man did not make, and cannot mar.
The will to neither strive nor cry,
  The power to feel with others, give.
Calm, calm me more; nor let me die
  Before I have begun to live.

M. Arnold.

Do not look for wrong and evil —
  You will find them if you do;
As you measure for your neighbor
  He will measure back to you.
Look for goodness, look for gladness,
  You will meet them all the while;
If you bring a smiling visage
  To the glass, you meet a smile.

There is a tendency of all speakers to stay in one part of the voice and express animation by loudness, while the most natural expression of increased passion is a wider range of the voice. Even in dignified accentuation of the simplest conversation there should be something of this extension.

A speaker should use his whole range, but this does not mean loudness. It is the opposite of stridency. It is the characteristic of agility that the simplest conversational passage may be rendered dignified, and made clear to a large audience by the accentuation of range. There should be accentuation not only of inflexions but of the intervals between words, and between phrases, clauses, sentences, and paragraphs.

It is strange that the characteristic modulations of the voice have been so greatly overlooked. The student who will give careful study to the simple elements of range will be greatly rewarded.

The faults associated with the change of the length of the sound waves, or agility in speech, are many and very important. Perhaps most of these are better discussed in vocal expression, such as the abnormal speech tunes, but most of them are vitally connected also with the use of the voice.

The first of these, and the most common of all faults, is monotony. This is due to the absence of definite thought, to a lack of facility in the use of the voice and at times to a bad ear. Monotony may be associated more with inflexion, all inflexions being of the same length, but it will in every instance be also associated with lack of changes in pitch. Work for range of voice and exercising a definite attitude of the mind in thinking and the progressive discrimination which reveal this in inflexion and change of pitch together with the exercises which will eliminate any rigidity or stiffness will very easily correct dispositions to sameness of pitch.

On account of the fact that English is the most inflexional of languages, certain difficulties will be met with foreigners who speak English as they speak their own languages, in more or less of a level drift. The simple exercises enumerated will be very helpful to teachers in schools where there are many foreigners, and will furnish means of developing the ear and of awakening certain of the subtle changes of pitch and inflexion. Simple melodic form marked out carefully with chalk and applied, or simple meaningless words, such as counting (exercise 44) will marvelously help students who are struggling with the difficulties of English.

Occasionally students are found who speak on too low a pitch. A still greater number talk on too high a pitch. It does no good in such cases to say to the one "speak on a higher pitch," or to the other "speak on a lower pitch." Such suggestions create other faults. Students must be given the cause of the fault and must be told to speak on more pitches. Both of these are phases of monotony. In fact, all the leading faults of agility may be summarized under the heading of monotony. Even the speech tunes are all monotonous. They continually repeat some abnormal action. Monotony is always an element; hence, even in the breaking up of tunes of all kinds, dependence must be had upon the exercise of the fundamentals of English speech melody. In every case, definiteness of thinking, and decided attitudes of mind, cause true inflexional modulation; contrast, discrimination, and progressive transition cause intervals. The importance of accentuating these mental actions in the interpretation of good literature and reading and in the conversational telling of stories, discussions in various forms of extemporaneous speaking cannot be overestimated.

XX. AGILITY IN SONG

The necessity of improving agility in singing is more easily recognized than in speaking. Possibly too much work has been given to agility. Many begin almost immediately upon this and do not devote sufficient attention to primary conditions. Agility should follow, in both speech and song, the establishment of correct breathing, right expansion of the tone passage, elimination of constriction, and proper initiation and vibration of the tone.

I. SUSTAINING OF CONDITIONS.

In the development of song, the first step should always be a realization of the peculiar nature of the art and its function in human expression. The primary nature of song is to express the deep feeling and moods of the human heart, the feeling which awakens in response to a situation. This is the psychological cause of continuity of conditions. No student should be asked to prolong the tone, even in technical or mechanical exercises, without being made to realize what it means. A sense of sustained feeling, the holding of a situation in mind, will cause expansion and sympathetic retention of the breath and will secure prolongation far more quickly than a mere dependence, as is usually the case, upon will in holding the breath.

It is for this reason that the first step for the development of agility in song is not to secure mere variations in pitch, but continuity of conditions. Power must first of all be developed to sustain attention upon one idea and to hold one feeling without allowing the conditions to change. Even from the technical point of view, behind all variation in song there is a key tone, and implied in every possible variation in either speech or song are certain conditions which are the basis of the variation. Only by sustaining the conditions of support will the vocal bands be free to make their changes and the organs to adjust themselves to the greatest flexibility.

Before extending exercises for agility or continuity of conditions to variations of pitch or scales ease of tone production in all parts of the voice must be tested. The exercise called "Ease in Intonation" should be reviewed and investigation made of the student's power to preserve conditions of support in the articulation, speaking as easily as in conversation, while prolonging tone with changes in pitch as in scales. This ease is essential because in accentuating changes in pitch the activities in continuity of conditions must still receive attention. True changes in the vocal bands are co-ordinated with control of breath and all other conditions.

Every teacher of song will have his own exercises for agility. As an innumerable number of these are found in different books it will not be necessary to present any here. The chief harm that has come from the practice of exercises in agility in song is due to the fact that they have been taken at the first of a student's work, before fundamental conditions are established. The result is an unnatural and labored use of the muscles which degenerates into a habit, and may cause real injury to the voice. Before any exercise in agility is given, there must be mastery of the fundamental co-ordinations.

Such exercises, although primarily intended for singers, can be practiced with great advantage by speakers. All parts of the voice in singing are of great importance, while the central parts of the voice are of most importance to the speaker. Still, these exercises when rightly practiced, without straining for extreme pitches, high or low, but gradually persuading the voice to a realization of its full extent help to extend the range of the voice for speech as well as in song.

II. EASE IN THE PRODUCTION OF HIGH AND LOW NOTES.

In the variations of pitch and range of the voice in song, we are brought face to face with the fact that in both higher and lower notes there is a tendency to introduce a great deal of unnecessary labor. In modern times many who have given thoughtful study to the voice have distinguished a different action of the muscles and parts in the voice box in producing tones in the different parts of the voice, and they have taught this under the name of vocal "registers." They have made students mark definitely these changes of register, and develop ease by means of the variations. Some have gone so far as to introduce a kind of falsetto as one of the upper registers.

Now, it can easily be observed in singing that there is a change and that most people have certain breaks in the voice at certain points, but to mark plainly these breaks is to fail to recognize their cause. The suddenness of the break is due to the fact that the parts were so constricted that they could not change naturally until a change was absolutely necessary, then too great a change was made.

The real remedy for what has been called the "misuse of the registers" is to produce each tone with perfect ease and freedom, absence of all constriction and labor, especially in the larynx, and then as each note is made there is a change. The changes will be so gradual that not any great break in the voice will be found, and far greater ease and flexibility will also be attained.

The chief fault in not allowing the vocal bands and the muscles controlling them to change is in forcing the same action on a low pitch into a higher range, causing a constricted and labored tone. This constriction in securing a high note by tension is often injurious and voices are frequently destroyed by carelessness, or by lack of right beginning in training.

This wrong action can be explained. A higher pitch is secured in two ways, — either by shortening the length of a string or by giving it greater tension. The vocal bands can change their length or tension, and an untrained voice or one trained by bad methods generally heightens the pitch by giving greater tension to the vocal bands instead of allowing the parts to adjust themselves freely to change the length of these bands. Increasing the tension without changing the length is the source of most of the difficulties. Of course, the parts act to shorten the bands, but in practice and training one should allow this adjustment to take place easily and normally; sympathetically retain breath, make the tone as easily and freely as possible. This develops expertness in varying pitch and removes the constrictions that interfere with normal action of the parts concerned.

Of course, the size of the voice box cannot be changed. One with a large voice box and long vocal bands among men is a bass, among women an alto. The difficulty comes chiefly in not securing a certain facility in changing pitch without introducing constrictions or abnormal muscular action which will cause tension in the vocal bands.

The student who wishes to examine into what little is known of the difficult subject of the vocal organs will find it discussed by Sir Morrell McKenzie in his book on "Vocal Hygiene," or by Dr. Gordon Holmes in his volume on "Vocal Physiology." The former says definitely that mere knowledge of the vocal organs is of little assistance to singers. In fact, too much knowledge of the changes that take place in the vocal bands, or rather the theories regarding these changes, may cause too great a consciousness of them or magnify them at certain points, and thus do harm.

The best teachers of singing are those who secure such sympathetic relaxation of the whole tone passage and of all the muscles around the bands, that the parts are allowed to adjust themselves normally and unconsciously. Normal changes from one register to another are unconscious and instantaneous. When there is a free and easy functioning of the voice, the change begins earlier and there is little apparent variation where the ordinary voice makes a break.

One of the simplest and most helpful exercises in developing correct use of the registers is to take a simple phrase and speak it not only with openness of tone and ease but also with the widest possible range. Beginning on a central pitch, take sudden leaps in different directions, making sure that there is no unusual or unnatural activity anywhere, and that the voice is allowed to adjust itself.

Agility in song is aided by such an exercise as talking on all possible pitches as simply as in conversation. Ease in recitative should be mastered also for the freedom it gives to the voice in changing its pitch as in conversation. The recitation of lyrics with wide natural intervals also aids agility in song as well as speech.

Still another exercise, and possibly the most important for the development of a correct action of the parts concerned in changing pitch, consists in the practice of inflexions.

In conversation why is there so rarely a fault in the use of the registers? Because in speaking the vocal bands are allowed to make their adjustments naturally. In the making of inflexions, or changes of pitch in conversation as already stated, there are leaps and jumps from one pitch to another which are easy and free. The delicate adjustments are allowed to take place without constriction, but in song there is a tendency to sustain the actions. In passing from a lower pitch to a higher one, for example, there is a tendency to perpetuate certain activities belonging to lower pitches, thus carrying them up where they do not belong. Accordingly, one should practice inflexions in a great variety of pitches, making them long, short, and abrupt, giving them with great flexibility and ease, and allowing the organs to make their own spontaneous adjustments.

THE BLACKBIRD'S SONG.

Magdalen at Michael's gate
  Tirled at the pin;
On Joseph's thorn sang the blackbird,
  "Let her in! let her in!"

"Hast thou seen the wounds?" said Michael;
  "Know'st thou thy sin?"
"It is evening, evening," sang the blackbird,
  "Let her in! let her in!"

"Yes, I have seen the wounds,
  And I know my sin."
"She knows it well, well, well," sang the blackbird:
  "Let her in! let her in!"

"Thou bringest no offerings," said Michael,
  "Naught save sin."
And the blackbird sang, "She is sorry, sorry, sorry;
  Let her in! let her in!"

When he had sung himself to sleep,
  And night did begin,
One came and opened Michael's gate,
  And Magdalen went in.

Henry Kingsley.

III. RANGE OF VOICE IN SONG.

In the work of many teachers of singing, an overestimate is often placed upon the extent or range of the voice.

One teacher of singing was sent to me years ago by a physician. He had a sore throat and the doctor told him that there was evidently something wrong with his breathing and the use of his voice. The teacher boasted that he had trained many voices, adding several notes to some. He was suffering from a constriction of the pharynx due to the fact that the fundamental co-ordination was not established. Such a method has often ruined voices. It cannot be too often repeated that any training of the voice demands first of all the establishment of fundamental conditions; without this every other step taken may lead to failure and may destroy this most delicate and wonderful of all instruments.

Premature endeavors to extend the range may often cause ruin to a voice. Parts are put to an effort too great and abnormal conditions introduced. Frequently a squeezing of the whole throat is practiced to get a high note which may remain as a permanent interference to the real improvement of the tone. In general, and especially at first, the student must be warned against any extreme use of the higher or lower notes in his voice. Vocal training should begin in the middle of the voice and sympathetically and easily extend upward and downward.

When I first began to study with Lamperti he remarked, "You have spoken a great deal." I was anxious to know how he could tell this; and he answered that I used the middle of my voice so much better than the extremes. There is no doubt that every person must have centrality of voice and the speaker especially must secure control of it. Wherever one speaks most easily and normally there the work should begin. Patience will be required to secure right conditions in the extreme possibilities of the action of his vocal bands.

Voices have been classed in general according to their predominant parts, or those most capable of expressive use. Men's voices are basses, baritones, or tenors. Both tenors and basses are also divided into two classes. This distinction is made to secure a division of parts for male quartets or for purposes of harmony, especially in choral or chorus work.

Those possessing a baritone voice are often discouraged and consider that they cannot sing at all. As a matter of fact, the baritone voice is usually best adapted to speaking. Any voice tends to become this type when there is little exercise in singing and constant practice in speaking.

Unusual voices always attract the most attention. Hence, many persons strain to become high tenors or high sopranos.

The reason why a voice that uses more easily the central part is best for speaking is that from this the voice can play more easily upward or downward. If it is very low the low notes can be given well and the possibility of variation is only upward; but if very high the possibility of variation is chiefly downward or entirely towards the notes below. In speaking, great variation is needed both upward and downward. Even in singers there is frequently a weakness of the voice in the central notes, and this is especially true of sopranos. It is my opinion that no voice will lose by having the central parts of it sympathetically and easily trained, and to these parts the first exercises should be always directed.

Some consider that if a person is to speak it will necessarily interfere with and destroy the voice in singing. There is an element of truth in this. It is impossible for one who is continually speaking to preserve a very low bass or a very high tenor to the greatest efficiency. A speaker tends to use his whole voice if his speaking is natural and normal. If his speaking is abnormal he is inclined to use only a small part of his voice, to narrow its range. On the contrary, if a man develops his voice for singing he learns whether it is bass or tenor and develops it accordingly. It is a question whether the neglect of the other parts of the voice helps in its extension in a given direction or not, but such is the common view and practice.

In general, however, both singers and speakers should give some attention to the normal range of the voice and preserve it and develop its possibilities in its whole extent. I am inclined to think that the antagonism between singing and speaking has been due to artificial training on the one hand, and an entire lack of training on the other.

Too much has been made of the singing of the "top note," and of the ability to touch and to hold certain notes. The best test of expressive power and beauty in the voice is the richness and freedom of its action through its whole extent, combined with the power to express feeling, and, as will be shown later, especially its elasticity and power to change the overtones and sympathetic vibrations. This is of far more importance in expression than the extraordinary range of three octaves or more.

Primary co-ordination and right management of the breath, relaxation of the pharynx and the right co-ordination between action of the vocal bands and the sympathetic retention of the breath should be mastered before any effort is made to accentuate the range of the voice. The great centre of the voice must be made normal and the extension in range be very gradual.

In addition to the mental causes of lack of range, there is present at times a physical cause, a lack of free, flexible variation of the voice in all its parts. It is important for the teacher to give special attention to every voice and ascertain whether there is any constriction in different parts that interferes with variation.

Range of voice is important because it is the most dignified and normal method of expressing earnestness. Emphasis of range is genuine, and applicable to the expression of every kind of feeling. Command of range of voice gives command of passion, also. If the voice be used continually on one pitch, the passion expends itself, and the person loses the power to accumulate feeling. Range of voice in singing and speaking expresses control. One who can give one word on a high part of his voice and another on a lower part with perfect naturalness, has command of thought and feeling as well as voice. Changes of pitch must not, however, be mechanical. They should be part of a rational natural discrimination between great ideas and extreme transitions in the passion.

After noting the variations of pitch with every successive idea, and the extreme variation at some marked transition from the objective to the subjective, or from excitement to despair, emphasize extremely the mental actions or changes in point of view, and then vary all the modulations of the voice as much as possible, especially expressing such transitions by wide variations of key. Observe that change of pitch is one of the most spontaneous and free of all expressive modulations. In fact, pause and variation of pitch seem to lead the way and make possible the other expressive modulations.

A crowd of troubles passed him by
As he with courage waited;
He said, " Where do you troubles fly
When you are thus belated? "
" We go," they say, " to those who mope,
Who look on life dejected,
Who weakly say good-bye to hope,
We go where we 're expected."

Francis J. Allison.

They are here — they rush on — we are broken — we are gone —
Our left is borne before them like stubble on the blast.
O Lord, put forth thy might! O Lord, defend the right!
Stand back to back, in God's name! and fight it to the last!
Stout Skippon hath a wound — the centre hath given ground.
Hark! hark! what means the trampling of horsemen on our rear?
Whose banner do I see, boys? 'T is he! thank God! 't is he, boys!
Bear up another minute! Brave Oliver is here!
Their heads all stooping low, their points all in a row:
Like a whirlwind on the trees, like a deluge on the dikes,
Our cuirassiers have burst on the ranks of the Accurst,
And at a shock have scatter'd the forest of his pikes.

From " The Battle of Naseby " **Macaulay.**

VI

HEIGHT OF THE SOUND WAVES

XXI. FORCE AND POWER

Sound not only varies in the length of the vibrations, but also in height, or rather amplitude. The amplitude of the sound waves gives the loudness or volume of the tone. This seems to be the function of the vocal bands, but as a matter of fact, it is the management of the breath. The action of the motive power upon the vocal bands is the cause of different degrees of loudness. It is, therefore, a part of the co-ordination between the breathing and the vocal bands.

The study of volume should not begin early. Many think the voice should be strong at all hazards, and acquire the habit of forcing the breath against the vocal bands and making a kind of strident loudness, but this is injurious. The higher elements of expression, such as change of pitch, inflexion, and the modulation of resonance especially, are eliminated. Loudness makes all monotonous. Many persons exaggerate its importance, considering it the only sign of strength.

The power to speak loudly or with great volume is overestimated by nearly all students and some teachers. The first question put to a teacher is frequently "Can you tell me how to strengthen my voice?" The worst perversions in quality may be entirely overlooked, but when anything is wrong the first thought is that the voice is weak. Some even consider this as practically the only step to be taken in vocal training. "Make a point of practicing," writes J. P. Sandlands, in a foot-note in his "Voice and Public Speaking," "these exercises with energy, almost with violence. Exercise, to be of any service, must be smart. This is true of all exercise whose object is the development of power. It may be advisable to sing softly for the purpose of training the ear, but for the voice, the training must be severe. The gymnast, when he wishes to train for walking, does not creep listlessly along; but he exerts himself, puts forth all his force, and strains every nerve. The conditions are the same. We must train hard. We need not fear any bad results. There will be at first a little aching in the throat — there must be, if the exercise is to be of any service — but it will soon pass off."

Such ideas, to one familiar with the delicacy of the human voice, especially from a teacher of vocal training, seem astounding. Many instances could be related in which voices have been ruined by such a method. Possibly a few persons have the strength to bear it for a time, but even these, unless they happen to discover by accident or from instinct the real primary condition of voice production, can never develop true vocal power. A voice that is perfectly normal at the beginning of such a method will become strident and coarse, if not husky. While at the first it may seem to be getting stronger, one who thoroughly understands knows that the growth is in the wrong direction. The power to make easy and natural inflexions, and especially all modulations of tone color, is made impossible by such a method.

Of course there is a certain natural effect of animation which should be secured before work upon intensity is begun. All life expands, and a diffusion of life must precede control. Volume is the natural expression of animation. Hence, there is a certain awakening of greater life, increase of breath, and volume of tone which is the free manifestation of animation. This simple expansion, up to a certain point, that is, when there is no forcing of the volume for its own sake, is natural, normal, and a necessary stage in all practice.

Even in this case, however, the student must be careful to increase the central conditions rather than the outward modulation; that is to say, the increase of animation, or of life from the first should cause increase of the amount of breath and the openness of the tone passage rather than the volume.

Certain students, or those who have made their tone weak by repression, may need special attention for freedom and outward demonstration. Even in such cases, however, any practice must be temporary. It is only an expedient to eliminate restrictive tendencies and to give greater freedom to normal expansion. Such repression or constriction may interfere even with the establishment of right conditions. Whenever this is found there must be outward demonstration as a means of awakening a sense of the inner life, but once this has been done then freedom must be given to conditions more than to modulations. The transition will not be a difficult one with such students. When once the habit of repression and control has been formed the spontaneous manifestation will be the more difficult step.

I. PROJECTION OF TONE.

What is meant by strength of voice? It is certainly not the same as loudness, nor is weakness of voice synonymous with simplicity. The first test is its carrying power. Can it be heard at a distance? That is of vital moment. Upon what does this depend? Everyone should experiment to find this out for himself, as he is sure to be skeptical when told the real facts in the case.

Go out into the fields with a friend. Read or speak a few lines and let the other say whether you are heard or not. Then separating farther and farther, endeavor to speak as easily as possible, but in different ways, and find out in what way you can be heard best by the other. The same experiment may be made in a large hall.

The result of such experiments, if practiced with proper care, will be the correction of many common misconceptions.

The chief agent in projecting the voice to a distance or causing words to be heard in a large hall, is the sympathetic retention of breath, or the stimulation of activity in the middle of the body, which may be called support.

The second condition is openness of the tone passage, or free emission of sound. There must be largeness of vowels, richness of vibration in the articulation of the consonants; nothing must be labored.

Third, and closely related to the foregoing, is vocal quantity. Every vowel must have the same relative quantity it has in conversation, though extended and enlarged.

The fourth quality to be noticed is distinctness in articulation. This does not mean laboredness, nor constriction. Distinctness in articulation, as will be explained, means an unmixed condition. Every element has its own fundamental action and a free return of this to a state of rest.

The fifth condition is that the hearer will understand in proportion to the change of pitch between words and phrases. Words must come individually to the ear. Speakers who cannot be heard with ease usually "run words together," and when on the same pitch this seems unavoidable. Variation of pitch between words is much more important than is commonly recognized. It is the most effective element of naturalness, since it enables the speaker to be easy, and removes all effort from speaking.

The sixth, last, and least important cause of being heard at a distance is the increase of loudness.

The importance of being heard when speaking in a large place demands careful attention. Speakers, when embarrassed, often strain the voice and give it a hard mechanical thrust. Strained loudness interferes with all the natural resonance and delicate modulations of the voice.

The increase of the carrying power of the voice demands no strain, no labored effort, but simply emphasis of the fundamental conditions of tone.

The speaker should preserve ease, look at his auditors, and distribute his truths to them phrase by phrase. It is well when beginning to speak, especially if in an unfamiliar place, to proceed deliberately with the first phrases, to search for what has been called the "key" of the hall, and feel the sympathetic vibrations that come from the entire room. In some of the largest audience rooms in the world a natural sympathetic resonance of the voice will enable it to be carried to the farthest corners, but any increase of loudness or unnatural elevation of pitch will awaken a roar of discordant vibrations which will entirely prevent the man from being heard.

In a well constructed audience room, deliberation, the right command of the voice, especially the breath, vocal quantity, good articulation, and natural variation in pitch between words, will enable almost anyone to be heard by as many as ten thousand people.

Instead, however, of obeying these instructions the ordinary speaker increases loudness, and this only upon a vowel here and there which happens to fit his mouth. His sound is easily heard, but his words are not understood. Most men, in making an effort to speak, increase the pitch, eliminate natural changes, and necessarily become monotonous. This results from a misconception. Fog-horns and sounds intended to be heard on the ocean are low-pitched. One who can manage his voice properly can make a sound heard on a low pitch better than on a high one, but better than either, in the natural speech centre of his voice.

Again a hardening of the tone, a shrillness or harshness, will be noticed in many persons.

In nearly every such case sympathetic variation and change of pitch are eliminated. The intervals between words are not only a characteristic of naturalness, and aid one in being heard and understood at a distance, but they are also of great importance in articulation. Yet, of all modulations, intervals are most overlooked. Not only is change of pitch between words and phrases necessary to the hearer, but of vital moment to the speaker. It invites a re-adjustment of voice conditions; prevents strain of the vocal bands; permits a natural and freer modulation of the voice; gives greater range; and aids the speaker in presenting his ideas to his audience.

Change of pitch is of special moment to the actor. A player cannot bawl unnaturally and on one pitch; he must suggest naturalness in order to avoid artificiality. He must give the appearance of the simplicity of conversation, and at the same time be heard by two or three thousand people.

Joseph Jefferson, for example, in one scene of "Rip Van Winkle," took a little boy upon his knee and talked to him in the most natural way; and yet every word and syllable was heard, by three thousand people. When over seventy years of age he could still be heard by every person in the very farthest corner of the gallery. How did he do this? Only the few who know something of the difficulties of the situation and carefully observed his mastery of voice can appreciate his victory. He took a great deal of breath into his lungs, and gave rich vowel resonance and natural vocal quantity. His articulation was not at all labored, but simple and distinct, and, above all, every word came on a different pitch as an individual whole, supported, projected, and directed. Jefferson enlarged his conversational form, but kept every element so natural that all he said sounded like the simplest conversation. Naturalness does not depend upon size but upon form and proportion.

The untrained speaker places his words on one pitch, abnormally high, and to make his voice strong he forces out breath where he should retain it, constricts instead of expanding his chest, and accordingly loses the proper centrality and ease in tone production. As a result his voice becomes strained and weak, where a right use of the conditions would have brought vigor and caused his words to be carried to a great distance. Labored tone production interferes with inflexions, touch, changes of pitch, and makes wholly impossible any modulations of color.

Voice is not the result of great labor. It is simply vibration. The ringing of a bell does not depend so much upon the strength applied to the stroke of the hammer, or upon the size of the hammer, as upon the size of the bell and the delicacy of the application of force to initiate the vibrations. Constrictions and strains interfere with the power of voice. They introduce false vibrations or discords in the overtones, which make the tone unpleasant, and interfere with the fundamental vibrations that cause it to carry to a distance.

Hence, we can see the necessity of the law stated by many of the greatest vocal trainers, — namely, "purity before power." Whenever an endeavor is put forth dynamically to make a voice loud and strong, its finer qualities are lost.

Why does naturalness help a speaker to be heard at a distance? Because the variations of pitch, the right rhythmic pulsation, bring action and reaction. Naturalness increases not only the amount of breath, but the rhythmic pulsation of breathing. The number of times one breathes also increases. The speaker can manage his breath more easily, and voice breathing does not interfere with life breathing. The natural voice is the only one we can truly manage. Not only is it necessary for expression, but often for the purpose of making the words heard at a great distance.

Good illustrations of the correctness of these suggestions will be found in the art of song. How does a great vocal artist, such as Albani, Nordica, or Sembrich, when using a tone so delicate as hardly to be heard, yet make the words spoken understood by five or six thousand people? In a large hall I once heard Albani sing "The Last Rose of Summer," and I happened to be one of those farthest removed from her. Yet in a tone barely audible she caused every word to be understood by everyone. She retained a large amount of breath in her lungs and though making the softest tone possible, kept the tone passage widely open and free from constriction. In this way, the sympathetic as well as the primary vibrations were carried to a great distance.

This accentuation is one of the chief characteristics of the singing of a true artist. I once heard a most illustrious singer, in fact the most popular in the world in her day, sing her favorite song, "Home, Sweet Home." But the soft parts of it were lost because they did not carry as far as the loud ones.

There is a class of singers, called shouters by some, who bawl and scream and make a tremendous noise in certain parts of a song, while the lower and softer parts seem to fall at their feet.

At first thought many will see no reason why a pure tone has anything to do with the carrying of words to a distance, but if we listen to a band playing in the midst of a noisy street, we shall find as we get farther and farther away, that the noises are dropped, while the sound of the band is carried over all the buildings and through all the discordant vibrations to a great distance.

Nature loves to carry a pure tone. The reason for this is that sound waves and vibrations are regular. Noise is irregularity of sound waves which break up against each other like irregular waves in a choppy sea; while regular vibrations, like the great ocean waves rising in response to a wind blowing steadily in one direction for a long time, get a momentum to carry afar, "Telling," as Mrs. Browning says, "the shore of the distant storm." A strong sea may be felt far away where there is no wind to indicate the cause.

Accordingly in these examples we recognize the principle which underlies right qualities. Strength of voice and its purity as well depend upon the transcendence of activity in the middle of the body over passivity of the throat.

Every step that has been taken so far is the best not only for developing the right qualities of the voice but for increasing its power. Every vibration must be made correct and regular and the sympathetic vibrations must be brought into harmonious union before strength of voice can be attained.

When exercises in forced tones are used to strengthen the muscles and voice, good results may seem to follow at first, but in most cases, the improvement will be only temporary, for sore throat and frequently loss of voice will ensue. Power must never be gained by forcing. The voice must grow naturally. The accentuation of the fundamental conditions will begin to strengthen the muscles concerned in tone production, especially the diaphragm, and strength will come normally. Abnormal use of the voice, or any forcing process, may strengthen the constriction that causes the fault.

First secure correct tone production, establish normal co-ordination, and learn to use the right parts in the right way. Then accentuate, or increase the fundamental conditions, and growth and development of right qualities and normal control will accompany the strengthening of the voice. The first thing to secure is accuracy and normal relationship; strength will come later. Attention must first be given to quality and afterward to power.

II. SUPPORT OF THE TONE.

The true method of increasing the strength or power of the voice, after the development of the essential qualities, is through increasing what is technically known as "support." This depends upon the control, or retention of the greatest possible amount of breath in the lungs during the emission of tone.

How can we "keep the breath under the voice?" That is, how can we speak on a full chest, how strengthen the inspiratory muscles so that we can speak naturally with a larger quantity of air in the lungs? This has already been discussed, but to develop support or secure strength of voice, renewed observation of the facts of breathing will be necessary. These fundamental conditions of tone must be increased still more to increase support. Under the topic Economy of Breath the discussion of the importance and necessity of speaking with more breath than usual in the lungs was begun. While reserve of breath is necessary even for right vibration, support of tone implies still greater surplus or reserve of breath in the lungs. The subject must now be taken up from the point of view of support.

To understand the subject more definitely we may roughly indicate five imaginary points according to the amount of breath reserved in the lungs during possible speech. These divisions are artificial but helpful, if not necessary, to a definite understanding.

1. We can speak with the average amount of air, say what we ordinarily have when sitting; the average, of course, is greater in standing than in sitting, in walking than in standing, and in running than in walking, but we will imagine an average amount of life breath.

2. We can speak with a little more breath in the lungs than the average.

3. We can speak with less breath than the average.

4. We may expand the lungs by labor and speak with the greatest possible amount of breath — that is, with forced inspiration.

5. We may speak with a labored expiration of the breath, and with as little breath in the lungs as possible.

At which of these points, — which of course, vary, but may be considered stationary for the sake of discrimination, — can we make the best tone?

We recognize at once that the forced expiration (5) is the worst possible for tone. The tone is weak, constricted, and cramped and could not possibly carry to any distance. It has no richness of vibration.

A forced inspiration (4) is found to be only a little better, for when the heavy muscles are introduced and a labored inspiration of air is taken, the tone is correspondingly constricted.

Many persons speak with the breath at about (1) the same degree with that of life, and some even speak with less breath (3) than they have when walking about or sitting, or even in sleep. These people have weak voices. They are always tired after speaking. Headaches and all sorts of abnormal conditions occur after using the voice. Intellectual men sometimes have this fault. Accustomed to earnest thinking, concentration of mind tends to contract their bodies, and lessen breathing. Their thinking is abstract; they tend to repress imagination and feeling, and, hence, their mental effort instead of normally expanding the body and opening the throat, tends to cramp the chest and to constrict the tone passage.

When the breath, in making a tone, is greater in amount than the average (2) there will be normal return to life breathing after speaking a phrase, while the vital functions will not suffer any interference, but receive rather a proper stimulation from the use of the voice. Hence, the exercise of the voice with more breath in the lungs than usual is healthful.

In proportion to the amount of breath that can be easily retained in the lungs during the production of tone will the voice be strong. This increase in the retained breath does not make the voice harder, but, on the contrary, more resonant, richer in sympathetic vibrations. It has more life and greater capability of expressing imagination and passion.

Accordingly, in the practice of "starts" and other exercises, as soon as correctness of response is established right co-ordination, natural action, right initiation, proper relaxation of all unnecessary parts and correct use of necessary ones, then begins the work of positive training, the accentuation of primary conditions, especially retention of breath and true vibration.

Exercise 85.
Strength and Initiation.

The "starts" must be practiced at first lightly and easily, with only slight increase in the fundamental conditions, but gradually the amount of breath must be increased. They must not be practiced carelessly, but graded by the successive accentuation of new points, such as the enlargement of the vowels, more open tone passage, greater purity of tone, and especially from first to last a gradual but constant increase in the amount of retained breath.

The same principle can be applied to other exercises.

There must not only be a greater retention of breath, but more sympathetic relaxation of the tone passage; in short, a deeper co-ordination and accentuation of the fundamental principle, with each repetition of any exercise. Mere practice of an easy exercise, in exactly the same way, without any greater realization of the principle involved, or without any endeavor to improve or to increase the fundamental conditions or activities of correct speech, will not develop power. First learn the right conditions, and then normally accentuate the primary elements. This is the true progression and right method of increasing the strength of the voice.

Strength of voice is needed not merely by public speakers, readers, actors, and singers, but it is closely connected with the health of everyone. Any weakness should at once be corrected.

Why are business men worn out after important interviews, especially in the busy season? Because of misuse of the voice. Some in trying to speak agreeably and to soften the voice lessen the breathing and thus weaken the primary conditions. They do not co-ordinate breathing with thinking and feeling or make tone soft by improving its conditions, but lessen the amount of breath, often by so-called " bating " or wasting the breath. To aspirate or soften a tone by waste of breath is unhealthful as well as hindering to all the expressional modulations of the voice.

This weakening of the voice while softening it is especially common among women in society, many of whom are prejudiced against hard, shrill voices, and consequently, not knowing the right method of softening the tone adopt the wrong one of lessening the support. This is done at the expense of health and vitality, and induces headache and a long train of evils, nor does it make the voice truly pleasing. True softness of the voice must come from greater openness, purity, and the enriching of its secondary vibrations. One of the most important things to be learned is how to make the voice intense, and at the same time rich and resonant.

I am aware that many imagine that increasing the support will coarsen the voice or make it loud, but this is not the case. Accentuation of fundamental conditions will make it richer and more resonant, will decrease the loudness, lessen the harshness and narrow angularity, so common among all classes of people.

Notice a person conversing with another in a social gathering or in a car. On account of the projection of tone everyone can hear what he says. He is unconsciously talking to all persons present. This high pitch or strident projection is entirely due to the action of his mind misusing support. Then, many people, in striving to avoid this vulgar fault, fall into the opposite extreme by weakening the voice. The softest tone must be supported. Even in speaking to an individual close by we must breathe often and deeply. All true use of the voice demands support or a transcendence of conditions, such as retention of breath over the volitional expenditure of energy. Disagreeable tones result from having more clapper than bell.

In the development of strength of voice a fine illustration is afforded of a principle in training, that is, the difference between the realm of ease and that of effort. At first the realm of ease, that is, free, flexible action of an agent, is extremely narrow. The simplest action causes labor. This is especially true of every action concerned in voice production. There is an increase of activity in true voice production, but this centres in the inspiratory muscles in retaining breath, causes the voice to be more resonant and prevents waste of breath and of energy. That is, the more breath we have in the lungs, and the greater effort we put into the inspiratory muscles retaining breath, the less effort we have to put forth in the making of the tone. A drum that is not in good condition nor tuned up has to be struck harder than one with every part elastic and the two heads in proper tension. It takes more effort to play a gourd fiddle than a Stradivarius violin.

We find here one reason why one who does not have much breath in the lungs has to make much effort in speaking, effort is wrongly directed. An old, worn out locomotive, unable to maintain high pressure or a large amount of steam, has to cough and puff and make much noise to get up a small grade, while a strong modern engine with its power of retaining heat and steam will move with many times the load without apparent effort or noise. Power is in no sense synonymous with effort. It is the right use of energy, the ability to produce the maximum effect with the minimum of effort.

As support of tone is the result of sympathetic and harmonious retention of the breath the first aim must be to secure this. All labored action must be avoided since labored condition of the diaphragm constricts the tone, instead of supporting it. Retention of breath must be sympathetic at all hazards.

Do not, however, attempt to retain too much breath at first. The best exercise is "initiation of tone." This should be reviewed at every point in the student's progress, constantly but gradually increasing the amount of breath retained.

Exercise 86. Conditions and Speech.

In connection with continuity of conditions the results of practicing the starts should be applied to speech. Frequently, though the voice improves in giving the start, there seems to be difficulty in applying the results to a series of words.

Give "ah" or "o" and then a phrase from a poem; following by another "ah" and then another phrase, then another "ah" without breathing or changing the conditions, the only changes being the easy and free articulation of the successive words. Keep the conditions of openness in the throat and reserve of the breath exactly the same whether giving a tone or speaking a word. Allow especially no waste of breath in consonants or change in freedom of tone in successive vowels. Then give free inflexions and read the whole passage applying all conditions to speech.

Ah! 't is like a tale of olden
  Time, long, long ago,
When the world was in its golden
  Prime, and Love was lord below.
Every vein of earth was dancing
  With Spring's new wine;
'T was the pleasant time of flowers,
  When I met you, love mine.
Ah! some spirit sure was staying
  Out of heaven, that day,
When I met you, love, a-Maying
  In that merry, merry May.

From "A Love Lyric" **Gerald Massey.**

O LARK OF THE SUMMER MORNING.

I love to lie in the clover,
  With the lark like a speck in the sky,
While its small sweet throat runneth over
  With praise it sendeth on high.

O lark of the summer morning,
  Teach, teach me the song that you sing,
I would learn without lightness or scorning,
  To give praise for every good thing.

O lark of the summer morning!
  Give, give me of praying the key,
And I 'll learn without lightness or scorning
  As I did at my own mother's knee.

From the Japanese **Not Known.**

This exercise develops the active retention of the breath and sustains the conditions while the organs of articulation are acting. As every other important exercise, it not only improves conditions of tone, but at the same time develops enunciation.

Further exercises can also be taken, such as scales and variations of key with continuity of support.

Any exercise that accentuates fundamental conditions and causes these to be sustained during changes in the articulation, variations of the vocal bands or transitions in emotion or situation, will also be helpful. Support means increasing such fundamental conditions as keeping the right amount of breath in the lungs, no matter whether we are making a soft tone or a loud one, no matter whether we are giving a demonstrative or emphatic expression or one tender and sympathetic. The support must be practically the same because all must have equal life, and vigor, and must be heard at the same distance.

The law of support may be thus stated: that which is more central must always sustain and justify that which is nearer the surface. Accordingly, that which supports everything in expression is the thinking. This is why genuineness of thinking and feeling must be especially emphasized. Next to this the expression of the face, the position of the whole body, its expansion and rhythm must justify all vocal expression.

There are many mysteries in connexion with the voice explained possibly by subtlety of support. For example, a speaker can see one man in his audience who is listless, and hit him with his voice so as to make him jump. The chief reason is that direction of attention causes him to project the tone. Support is the direct expression of a mental act.

Anyone can prove this. When you speak to a specific person in a specific direction, there is a mysterious sending of the voice to just the right spot and to just the right distance. One may have observed a nurse or a mother when calling a child projecting the tone to a great distance. Then the child shows his head close by and laughs, showing that he knew by the way his mother projected her tone where she thought he was. The mind, in some mysterious way, dominates the breathing and sends the voice to the right degree of distance; but this is not all. The voice can be sent in a specific direction, or diffused indefinitely in all directions.

We have here a hint for some simple exercises to develop support. Study your breathing and notice that increasing it does not necessarily increase loudness or make the pitch higher; but may serve as the means of accomplishing many things, one of these is the sending of the voice to a distance. We find also that our feelings, thoughts, emotions, and imaginations, establish through the body certain conditions for voice, while at the same time there is a delicate volitional act of initiating or modulating the tone. Vocal training is primarily dependent upon the stimulation and development of such conditions. We can distinguish these from certain modulations of the voice, such as inflexion, change of pitch, pause, and touch, more or less actively produced by will in the direct modulation of the tone.

Exercise 87. Support and Projection.

To develop support render passages expressing distance or different degrees of distance, different directions, great extent of space, such as breadth, or height, and observe the effect of mental action upon the respiratory conditions. The first and the easiest to indicate is the sense of distance. Observe, for example, how the voice can suggest the Roman fathers speaking across the Tiber, while the explanatory clause given by the speaker himself has no such projection. When anyone hears a shout from far off hills or in deep woods, though not a word be understood, he knows at once that the speaker is calling to an individual at a distance. Generally the direction is also indicated.

"Come back, come back, Horatius!" Loud cried the fathers all.
"Back, Lartius! back, Herminius! Back, ere the ruin fall!"
Thomas Macaulay.

In addition to direction we can suggest degrees of distance. In this the knight with the flag may be located imaginatively in one direction afar off, the maids in another and nearer at hand. The gunners at a still greater distance in a different direction. The gallants may be imagined immediately around the speaker. Observe how all these, or others, according to the conception of the speaker, can be indicated by one who has control of his breathing, and whose body and all the conditions of his tone immediately respond to his thought.

Ho! strike the flag-staff deep, Sir Knight — ho! scatter flowers, fair maids:
Ho! gunners, fire a loud salute — ho! gallants, draw your blades.
Macaulay.

Sometimes, when seeking for someone at a distance, but in what direction is uncertain, a speaker will send out a call in all directions, as in the first of the following. Notice in some of the others the sense of height and extent.

Ho, Starbuck and Pickney and Tenterden!
Run for your shallops, gather your men,
Scatter your boats on the lower bay.
Miller.

I would call upon all the true sons of New England to co-operate with the laws of man and the justice of Heaven.

Roll on ye stars! Exult in youthful prime;
Mark in bright curves the printless steps of time.
Darwin.

The cloud-capped towers, the gorgeous palaces,
The solemn temples, the great globe itself, —
Yea, all which it inherit, shall dissolve,
And, like this unsubstantial pageant, faded, —
Leave not a rack behind.
"The Tempest" Shakespeare.

XXII. FORCE IN MODULATIONS AND CONDITIONS

If we observe the use of our breath in making voice we easily perceive that a small part of the breath is used actively to pass between the vocal bands and initiate the tone, while a much larger amount is retained in the lungs.

We may illustrate this by the difference between the drum and the stick. The drum is acted upon. The stick is the active agent. Man's vocal bands, and his whole body, including especially the lungs, is put into vibration by the active use of a small part of his breath. Another illustration is a violin. The whole instrument is attuned, and the bow then produces the sound. As in all cases the drum transcends the stick, the violin its bow; so the amount of breath reserved far transcends the small amount actively used as the agent of initiating the tone.

Over against these, we can distinguish another class of expressive elements, such as the modulations of resonance or tone color which are still more dependent upon the primary conditions of the voice. We can make an inflexion by will but not tone color. This must result from the diffusion of emotion through the voice and body.

This distinction leads to the understanding of certain facts. For example, with a lack of control of the voice, mere demonstrativeness or giving up of ourselves to the first tendency of emotion, loudness will result. But if the emotion be controlled, if there be a reserve of the first tendency to cry out, then emotion passes into conditions. The conditions are greatly increased and intensified, while the volume of the tone when expression does follow is greatly lessened. This has been named intensity, which is antithetic to volume. Loudness expresses not only demonstrativeness but objectivity and a lack of sympathy. Intensity, on the other hand, expresses depth of feeling.

We find that in proportion to the reserve of the emotion it will be diffused through the whole body and there will be a far greater number of sympathetic vibrations from all parts. The whole body by this process is attuned harmoniously, the number of overtones is possibly also increased, the number of accessory or sympathetic vibrations greatly augmented.

Loudness is antithetic to resonance; that is to say, in proportion to the direction of energy to the increase of the height of the sound waves there will be less power to modify their shape.

All of these facts are consistent with each other. We must, in short, direct the emotion to the establishment of conditions rather than to the direct and immediate causing of a modulation. We must speak with the whole body and being, it must be brought into tune.

As much breath as possible must be retained in the lungs. Conditions must always transcend modulations. Retention of feeling must rise above its outward manifestation. Expression itself is but a sign indicating the presence of emotion. It is not allowing the emotion to run to waste. The retention of the breath is as much an essential condition and element of expression as allowing a small amount of breath to pass between the vocal bands. Even this must pass sympathetically with the retained breath or no true tone can be produced.

I. INTENSITY.

Important as is the principle of support to the strengthening of the voice it has a much wider application. It is by means of support that all expression is rendered intense. In proportion as mere loudness or the elements of outward demonstration are accentuated, will there be a tendency to lack of control and weakness; but in proportion to the accentuation of the rentention of energy and emotion in the breath and body, that is, in the conditions of expression, will all expression have dignity, weight and intensity. Any expression is intense in proportion to the activity at the centre. Superficial expression is at the surface.

Many speak of certain emotions as being incapable of intensity; others as being, in their nature intense, but any emotion can be intensified. Joy, love, admiration, and all positive emotions, even anger and negative conditions, can be made intense, and in proportion to this are they more definite and dignified.

In training the voice it must be recognized as the direct agent of feeling, and that the right training of the one must be associated with development of the other. Command of voice demands power to define and intensify feeling. Only by means of vocal training and vocal expression, rightly conceived and practiced, is an adequate method found for the right understanding and development of emotion.

One of the earliest steps toward mastery of the power to intensify feeling and express it with decision and dignity, is the perception of the fact that control of breath is directly associated with command of passion, and mastery of passion with that of the breath. The two are mysteriously co-ordinated.

If we observe a child sobbing we shall find that as it gains control over its feelings it secures command also over its breathing. The convulsive sob is due to the extreme character of passion, or possibly, we should say, to lack of control over it, because the sob is found often without a lack of intensity in the emotion.

Development of the muscles and securing of the right command over the breathing are necessary to the development of mastery over passion. The muscles of breathing must be active and control the expression of all emotion.

Of all the emotions the most difficult to interpret by the voice is pathos. Why is this? Because sorrow tends to depress vitality and to lessen the support of tone.

Here an important principle is disclosed. In the expression of any emotion there are two sides from which to choose. First, we may abandon ourselves to the tendency of emotion to do what its name indicates, move outward, and express that; or we may express the endeavor to control the feeling. Sorrow, for example, naturally results in depression and despair, but a courageous human being endeavors to command it. Shall we express the tendency of sorrow toward despair or the struggle to control it? The first expression will be weak, the second strong. The first will bring about a lessening of breath or support and minor inflections and tremulo; the second will cause an increase of breath, support and all proper vocal conditions. The first will degenerate into a whine; the second will make the emotion intense and elevated and command sympathy.

Observe also the difference between the way in which a strong man and a weak one express earnestness. The latter allows his emotion to explode suddenly, to reveal itself by bursts of loudness which generally come upon some vowel that happens to fit the mouth. His uncontrolled energy causes the voice to rise in pitch. In the strong man, on the contrary, the energy is reserved and controlled, though not repressed. The whole body is expanded and made more erect. There is an increase in breathing. The range of the voice is extended, the length of the inflexions, the decision of touch and the ryhthmic pulsations become more pronounced. In short, the energy being reserved, though not repressed, diffuses itself through the whole man, sustains all the emotions in definite attitudes, kindles the face, animates the whole body and multiplies the modulations of the voice. The first man rants, puts on an appearance of earnestness; the second is reserved, but he moves others by his suggestion of repose, intensity, and the natural signs of deep feeling.

The same principle is seen in joy. Two men receive telegrams; one becomes greatly excited; his voice goes up to a high key. He says "My brother is coming!" The stronger man smiles, his voice becomes more intense, purer and richer in vibration. Though he may use the same words, how different is the effect!

Loudness, high pitch, and hurry are the three chief methods of wasting emotion. Hence, control of emotion acts in direct opposition to these. It reserves and intensifies emotion, and this multiplies the modulations of the voice. These wastes of emotion, though modes of expression, are really expressive of weakness, and eliminate tone color, inflexion, and the deeper and more rational modulations of the voice.

Any emotion is capable of being expressed in weakness or strength. In proportion as it is intense it suggests power. It is like steam; it becomes intense by being retained. A locomotive increases its force by increasing the retention of the steam as the heat increases. There is greater pressure and with this added inner vigor a gain of power. There exists a common misconception of control. Many think that control of passion means its suppression. On the contrary, just as steam can be retained without putting out the fire or lessening its energy, but rather in such a way as to cause an increase of the pressure and force, so passion in expression may be so controlled, regulated and guided as to increase intensity.

Controlled passion will intensify the touches, prolong pauses and thus especially increase the rhythm, and dignify all the elements of expression. The tendency of many persons to give up to passion gives rise to impulsiveness, but this is not corrected by the suppression or the killing of feeling. As a horse does not lose his force or have his whole life suppressed by the rein, but is brought into control, and his strength seemingly increased by this, so the true expression of passion is not a waste but an increase of feeling.

There is always a strong and a weak aspect of any emotion. The strong tends toward dignity, life, energy, courage and resolution. A noble art always implies accentuation of the strong rather than the weak elements or tendencies. All passion should be expressed as intensely as the nature of the situation will admit. When any feeling is given intensity, it receives dignity and weight, and is made to emphasize what is noble in human nature.

We find also another principle involved. In order to intensify passion we must increase the imaginative and intellectual action. The attention must be sustained. The imagination is like the fire in the locomotive. It is the stimulus of the emotion.

Intensity is also closely allied to repose. When an emotion is presented as if it were on the down grade rather than cumulative, there will be an impression of weakness. Intensity and repose demand that we barely intimate the cause of an emotion, give only a sign of its presence. Expression is never exhaustive. "Thy light is none the less for lighting thy neighbors." We never give men feeling; we only intimate to them that we have it and its cause. An imaginative picture is awakened in the mind of an auditor, and this picture arouses his own feeling.

True expression of emotion demands its control and cumulation, an emphasis of the mental actions that stimulate it, not a giving way to the tendency of the emotion, but realization of its causes. Minor inflexions, lessening the breath, and other signs of weakness are given when expressing the sense of exhaustion or uncontrolled feeling, and the result is weakness.

How does intensity of thought or emotion especially manifest itself? Primarily, through touch. Touch, as has been shown, reveals the will, and is strong and decided in proportion to the element of control. Hence, pathos or any emotion, in proportion to its intensity, will be expressed by decision of touch and lengthening of pauses. Intensity demands greater frequency of breathing as well as retention of a greater amount of breath, and both of these bring longer pauses and greater vigor of touch.

Medium or intermittent stress, taught by elocutionists, expresses weakness, and denotes absence of intensity. The touch must be decided or radical to express strength or intensity.

Intensity also causes greater variation of pitch, and longer, more decided, and straighter inflexions. It implies greater earnestness and more vigorous thinking; hence, it emphasizes all the elements of conversational form and increases the range, in fact, all the expressive modulations of the voice.

Loudness often implies the opposite of intensity. We are loud in expression when demonstrative. Loudness indicates pretense to be earnest. Genuine earnestness is always revealed by increase of intensity. Loudness may at times naturally reveal momentary abandon, domination of emotion; but when continued this can only suggest waste of passion. It must be associated with great changes of pitch and other modulations; otherwise it denotes absence of genuine force.

If you make tenderness and delicacy intense, will you not destroy their character? On the contrary, it is one of the chief characteristics of a true vocal artist to be able to intensify tenderness. One of the Essays of Charles Lamb has been regarded as a condemnation of all vocal expression. He speaks of recitation as perverting a fine passage, and what he says is strictly true as regards ordinary recitation, but it should not be so. One who can render the most subtle and tender of poems without declamation, but by intensifying its own character, will make us realize its beauty. Vocal art must not be judged in ignorance of its possibilities or any art by perverted examples. The most delicate emotion can be made intense, and just as the most spiritual song can be sung with truthful expression of its delicacy, can a beautiful poem be interpreted by a true art of speech. The fundamental character of an emotion can be intensified without changing its spirit.

A reader must be able to express all emotions and to intensify the conditions of the most imaginative passage. To change the character of an emotion is not to intensify it; to degrade a feeling is not to express it.

Emphasize imaginative and all mental actions and realizations, and note that genuineness is the necessary, the only road to power.

Whatever cannot be made intense is not a genuine emotion. Indifference, for example, cannot be directly intensified, but here we come upon a paradox, — we cannot render indifference indifferently. Even this must be intensified to make it understood or impressive. The reader may suggest an indifferent character, but indicate that the quality is only reflected from the mirror of his own earnestness. He can hardly express it directly and cause anything but lack of attention. To arouse interest he can only express the impression indifference makes upon him.

Art has been called by Veron "the intervention of personality." The artist must express his own impressions. "No man," says Schlegel, "can give anything to his fellowman but himself." In expressing any feeling, the vocal artist gives the measure of his own realization. In the development of support and intensity, all previous steps should be reviewed, such as the establishment and co-ordination of the fundamental conditions, such as the "starts," laughter and inflexional initiation. The special point in advance to be now noticed and emphasized is to increase still more the reserve of breath and other voice conditions, but to lessen rather than to increase the volume.

Exercise 88. Intensity and Feeling.

Render lines full of passion, and note that the more intense the feeling the more are the tone conditions, especially the reserve of breath, agility and range of the voice increased. In every species of passion accentuate the conditions and lessen the volume.

Now men of death, work forth your will,
  For I can suffer, and be still;
And come he slow, or come he fast,
  It is but Death who comes at last.
"Marmion" Scott.

Oh, lift me as a wave, a leaf, a cloud!
  I fall upon the thorns of life! I bleed!
A heavy weight of hours has chained and bowed
  One too like thee: tameless, and swift, and proud.
"Ode to the West Wind" Shelley.

Render a variety of dignified speeches from exalted characters, and notice that increasing the support intensifies, dignifies and ennobles, while lessening the breath and giving either medium stresses or loudness will weaken the effect.

. . . But, sirrah, from henceforth
Let me not hear you speak of Mortimer:
Send me your prisoners with the speediest means,
Or you shall hear in such a kind from me
As will displease you. — My Lord Northumberland,
We license your departure with your son. —
Send us your prisoners, or you 'll hear of it.
From "Henry IV" Shakespeare.

Follow Light, and do the Right —
For man can half control his doom;
Till you find the deathless angel
Seated in the vacant tomb.

From "Locksley Hall" **Tennyson.**

Render subordinate clauses with the same intensity of touch as those which are emphatic. Express also degrees of emphasis by varying the length of inflexions and changes of pitch. Intensity is a matter of rhythm; emphasis, of melody and form. Intensity must apply to every phrase, and each successive idea must receive a vigorous touch.

I do not count the hours I spend in wandering by the sea;
The forest is my loyal friend, like God it useth me.
In plains that room for shadows make of skirting hills to lie,
Bound in by streams which give and take their colors from the sky.
Aloft, in secret veins of air, blows the sweet breath of song,
O, few to scale those uplands dare, though they to all belong!

From "Waldeinsamkeit" **Emerson.**

Lewes, in his book on "Action," says "There is no actor in our time who has any vocal expression except Salvini, and he fails in pathos." My observation of the elder Salvini agrees with this statement of the great critic. Salvini's tremendous command over passion, his power to suggest anger, indignation, and remorse was marvelous, but in the expression of pathos he gave up too much to the first depressive tendency, there was a slight suggestion of a whine. Of all actors, he had the greatest power of modulating his voice under the dominion of emotion, and his failure in pathos only shows the great difficulty in the expression of this emotion. Sorrow is, of all passions, the one in which men are tempted to be passive rather than active, to give way to the lessening of breath, or lack of retention; but if we remember that it is the control over it that makes the difference between the strong man and a weak one, the key to this greatest difficulty may be obtained.

Render some lines of sorrow, breathing often, and accentuating simultaneous activity through the middle of the body and the relaxation of the throat. Express the struggle to control the sorrow rather than its tendency to depress, contract, and lessen tone conditions.

Low, like another's, lies the laurelled head;
The life that seemed a perfect song is o'er;
Carry the last great bard to his last bed.
Land that he loved, thy noblest voice is mute.
Land that he loved, that loved him! never more
Shadow of thine, smooth lawn or wild seashore,
Gardens of odorous bloom or tremulous fruit,
Or woodlawns old, like Druid couches spread,
The master's feet shall tread,
Death's little rift hath rent the faultless lute —
The singer of undying songs is dead.

The seasons change, the winds they shift and veer;
The grass of yesteryear
Is dead; the birds depart ; the groves decay;
Empires dissolve and people disappear;
Song passes not away.
Captains and conquerors leave a little dust
And kings a dubious legend of their reign;
The swords of Cæsars, they are less than rust;
The poet doth remain.

Dead is Augustus, Maro is alive;
And thou, the Mantuan of our age and clime,
Like Virgil shall thy race and tongue survive,
Bequeathing no less honeyed words to time,
Embalmed in amber of eternal rhyme,
And rich with sweets from every muse's hive.
While to the measure of thy cosmic rune,
For purer ears thou shalt thy lyre attune,
And need no more the hum of idle praise
In that great calm our tumults cannot reach,
Master who crown'st our immelodious days
With flower of perfect speech.

From "Lachrymae Musarum" on the Worth of Tennyson. William Watson.

Render lines from Whittier's "Witch's Daughter," expressing her agony at the conduct of the neighbors, and her remembrance of the injustice to her mother, or the passionate words of Enoch Arden. At the same time, note the effect on breathing, pauses, changes of pitch, touch, and other voice modulations.

O God! have mercy on thy child,
  Whose faith in thee grows weak and small,
And take me ere I lose it all!

"Mabel Martin" **Whittier.**

O God Almighty, blessed Saviour, Thou
That didst uphold me on my lonely isle,
Uphold me, Father, in my loneliness
A little longer! aid me, give me strength
Not to tell her, never to let her know.

"Enoch Arden" **Tennyson.**

II. VOLUME.

Nothwithstanding the truth and importance of all that has been said regarding intensity, the voice must also increase in volume. While this is less expressive, it has a meaning, and when truly understood and developed in an easy and normal way and at the proper time, is of great importance.

Volume does not necessarily mean loudness. It is a certain strength or fullness in the amplitude of the vibrations. A voice may be made loud by forcing it, but volume must be the result of the elements already discussed. There must especially be a great amount of breath, or a true support of tone. The tone passage must become open and free. The vocal bands must be so responsive that the height of the sound waves may be given with perfect ease and repose and without a strain. In such a case the speaker or singer can modulate the volume for the expression of a passion, while in the case of forced loudness, no such expressive modulation is possible.

Volume also indicates a certain magnetic realization of the depth and strength of passion. It implies certain largeness in the realization of a situation. Many singers and speakers seem to give the impression that they fill only a corner of a hall.

I can remember the first time I heard the great singer Madame Titiens. She sang in "The Stabat Mater," and the first word she sang was "inflammatus." The flood of sound which came forth without the least effort filled the immense hall and seemed to overflow it. It was so full of life and vibration, so easy, and passionate, so intense and yet without the least strain. The whole audience was thrilled into life.

The method of developing volume must be by a gradual and careful mastery of all the steps so far unfolded. It especially depends upon the sympathetic vibration of the chest, which is manifested in tone in proportion to the amount of breath that can be easily, sympathetically, and harmoniously retained in the lungs.

Volume, as a rule, is better secured indirectly as a result of growth of normal conditions. When there is a primary effort to increase volume, there is apt to be a strain and interference with normal development. The first work for its development must be improvement of the general health, elastic retention of breath, and a certain easy expansion of the whole body.

The development of the imagination and feeling also has much to do with volume for these attune the whole body as the vibratory agent.

It must not be forgotten that volume does not consist alone in the increase of the amplitude of the primary vibrations. For example, a voice under a sounding board will have its volume greatly magnified by sympathetic vibrations. Observe the weak vibrations of a violin string when stretched without the body of the instrument, and then the richness of the vibrations when the string is acting in its proper place.

Similarly, volume of the voice is chiefly a result of what will be explained later as sympathetic vibrations, especially the vibrations of the chest.

Exercise 89. Volume and Intensity.

The voice may be made stronger by rendering hearty or animated passages full of patriotism or some normal excitement. Care must be taken not to force the volume in any way, but to give the demonstrativeness its natural and simple manifestation. Such an exercise brings greater freedom and spontaneity to the voice, the normal increase in volume being often a help in the natural development or increase in vocal strength.

BARCLAY OF URY.

Up the streets of Aberdeen, by the kirk and college green, rode the Laird of Ury; close behind him, close beside, foul of mouth and evil-eyed, pressed the mob in fury. Flouted him the drunken churl, jeered at him the serving-girl, prompt to please her master; and the begging carlin, late fed and clothed at Ury's gate, cursed him as he passed her. Yet, with calm and stately mien, up the streets of Aberdeen came he slowly riding: and, to all he saw and heard, answering not with bitter word, turning not for chiding. Came a troop with broadswords swinging, bits and bridles sharply ringing, loose and free and froward; quoth the foremost, " ride him down! push him! prick him! through the town drive the Quaker coward! "

But from out the thickening crowd cried a sudden voice and loud: " Barclay! Ho! a Barclay! " And the old man at his side saw a comrade, battle tried, scarred and sun-burned darkly; who with ready weapon bare, fronting to the troopers there, cried aloud: " God save us, call ye coward him who stood ankle-deep in Lützen's blood, with the brave Gustavus? "

" Nay, I do not need thy sword, comrade mine," said Ury's lord; " put it up, I pray thee: passive to His holy will, trust I in my Master still, even though He slay me. Pledges of thy love and faith, proved on many a field of death, not by me are needed."

Marvelled much that henchman bold, that his laird, so stout of old, now so meekly pleaded. " Woe 's the day! " he sadly said, with a slowly-shaking head, and a look of pity; "Ury's honest lord reviled, mock of knave and sport of child, in his own good city! speak the word, and, master mine, as we charged on Tilly's line, and his Walloon lancers, smiting through their midst we 'll teach civil look and decent speech to these boyish prancers!"

"Marvel not, mine ancient friend, like beginning, like the end:" quoth the Laird of Ury. "Is the sinful servant more than his gracious Lord who bore bonds and stripes in Jewry? Give me joy that in His name I can bear, with patient frame, all these vain ones offer; while for them He suffereth long, shall I answer wrong with wrong, scoffing with the scoffer? Happier I, with loss of all, hunted, outlawed, held in thrall, with few friends to greet me, than when reeve and squire were seen, riding out from Aberdeen, with bared heads to meet me; when each good wife, o'er and o'er, blessed me as I passed her door; and the snooded daughter, through her casement glancing down, smiled on him who bore renown from red fields of slaughter.

"Hard to feel the stranger's scoff, hard the old friend's falling off, hard to learn forgiving: but the Lord His own rewards, and His love with theirs accords, warm and fresh and living. Through this dark and stormy night faith beholds a feeble light up the blackness streaking; knowing God's own time is best, in a patient hope I rest for the full day-breaking!" So the Laird of Ury said, turning slow his horse's head toward the Tolbooth prison, where, through iron grates, he heard poor disciples of the Word preach of Christ arisen!

Not in vain, Confessor old, unto us the tale is told of thy day of trial; every age on him who stays from its broad and beaten ways, pours its sevenfold vial. Happy he whose inward ear angel comfortings can hear, o'er the rabble's laughter; and, while Hatred's fagots burn, glimpses through the smoke discern of the good hereafter; knowing this, that never yet share of truth was vainly set in the world's wide fallow; after hands shall sow the seed, after hands from hill and mead reap the harvests yellow. Thus, with somewhat of the Seer, must the moral pioneer from the Future borrow: clothe the waste with dreams of grain, and, on midnight's sky of rain, paint the golden morrow!

J. G. Whittier.

III. WEAKNESS OF TONE.

The student must remember that right qualities must be established before he can secure strength. Purity and other normal conditions must first be established before there can be a direct endeavor to make the voice strong. Only loss of power as well as of normal qualities can result from any mechanical forcing or labored action in the production of tone. Especially will this prove true where any constrictions are found, because the introduction of greater effort tends generally to increase these abnormal actions.

Weakness is directly associated with lack of support or want of control over the breath. This is closely connected with conditions of vitality. "Voice," said Dr. Guilmette, "like the organs that produce it, is vital. Accordingly, the more vitality we have, other things being equal, the more voice. Voice is merely breath, hence the more breath we have the more voice."

The first step in correcting any weakness of voice is to improve the general health and to centre the attention upon deeper, freer, and more rhythmic breathing. There is thus secured more harmonious expansion of the chest, and ability to retain a large amount of breath.

The development of support and intensity is the best remedy for nearly all cases of weak voices.

Special tendency to weakness demands more care in the practice of the successive exercises. Patience and perseverence will often be needed for months until all the respiratory muscles have been strengthened and all fundamental conditions of tone established.

Something more specific needs to be given in extreme cases. There is always in weakness a lack of expansion and too much contraction in the producing of tone. The conditions of the body, in such cases must accordingly receive attention. Even physical exercises, however, must not be labored or constricted but easy and progressive. There must also be cultivation of joy and courage and easy diffusion of emotion through the body.

The student must make tone all over. The conditions, however, must be made to transcend the action. Weak voices are not the result of a lack of labor, but of a lack of centrality of effort. That is to say, the student needs a larger amount of breath as the vibratory body; the tone is pleasant, musical, and strong in any bell when the bell is larger than the clapper. The same is true of the voice. When the energy is used to force out breath to make tone, though a loud tone may be made, it will lack genuine support and strength. The energy must be directed to the expanding of the chest and the amount of breath retained in the lungs. This point is important, since loud exercises are commonly given to strengthen the voice. Such loudness is simply due, as a rule, to the increase of the force of the stroke of the drum stick or the clapper of the bell, and may increase weakness rather than develop strength.

Exercises for development of strength of voice must be simple and gentle at first; there must be, however, a strong accentuation of all the conditions for tone. The best way to strengthen the voice is patiently to follow the regular order of steps previously laid down.

XXIII. FLEXIBILITY OF VOICE

A study of voice modulations in natural conversation reveals a continual variation of degrees of force. We find this in the accent of words. Certain syllables are called strong, others weak. We have also various degrees of loudness and volume. In the pronunciation of every phrase and even every word we meet with the phenomena of rhythm, of alternation, of strong and weak degrees of force.

An absence of this flexible variation of force is unpleasant. It causes the voice to be wearying, not only to the hearer but to the speaker himself. It is important, accordingly, to give some attention to the increase in this easy variation of degrees of force. All laboredness must be removed.

To develop flexibility in controlling force means to secure also better control over the breathing and vocal organs.

How does flexibility differ from agility? Agility, as used in this book, refers to facility in all modes of changing pitch. Flexibility refers to facility in changing degrees of force. Agility refers to facility in changing length of the sound waves; flexibility in the change of their height. It applies also to the organs themselves.

Flexibility is usually a broader term. Agility, especially as here used, is peculiar to the range of the voice. They necessarily imply each other. Work upon one will help the other, but both should receive attention.

I. NATURE AND CAUSES OF FLEXIBILITY.

If we study various animals, we find that the degree of mental power is directly in proportion to the flexibility of what are known as the tactual organs. The elephant has a pliable trunk. The parrot can move his upper mandible. The monkey has almost a hand.

A man with an inflexible mind lacks also emotion and responsiveness of voice and body. He cannot alter his point of view or quickly change his attention. Thus, his lack of flexibility has a mental cause. He must work accordingly for flexibility of all his organs, but he must develop also versatility of mind.

In fact, flexibility can be secured only through the mind. One who has a mind that moves slowly and heavily, without quick discriminations or variations of point of view, will be apt to speak monotonously. Habits of thinking in speaking render the voice flexible or otherwise.

On the other hand, work for flexibility of the parts concerned in tone production has a great effect over the motor centres of the brain.

The question as to whether the vocal organs have more effect upon thinking, or thinking upon the organs, is of little if any practical consequence. Work for all kinds of flexibility requires practice both in the versatile actions of the mind and also exercise in the variation of the actions of the voice. In working for flexibility, accordingly, the exercises should not be mechanical, but the mental act and the vocal act should, as far as possible, be associated.

All technical exercises, even one as mechanical as the practice of a scale, should be associated with mental stimulation. It is a well-known fact that genuine thinking and feeling cause better co-ordination of the nerve centres than does mechanical action. In all practice, even the most technical and seemingly the most mechanical, an imaginary situation should be held in the mind. This situation should be realized in feeling. The student should exercise his dramatic instinct, or the result of his training will be slow.

This, however, is not enough. Exercise in direct interpretation of discrimination and other mental actions must be practiced. Short extracts calling for variety of inflexions and changes of pitch of different degrees of force and of rhythm and movement should immediately follow the practice of any technical exercise, in order to apply these and to unite mental and emotional flexibility and free responsiveness to the voice.

II. ORGANIC FACILITY.

Another phase of flexibility has more or less direct relationship to the will. Flexibility refers to the quickness with which conditions respond and are established, such as degrees of support. Conditions must all be changed easily and quickly; each part must discharge its function with great dexterity. Flexibility implies an immediate responsiveness of all the organs of the voice to thinking, feeling, and willing.

Flexibility has a wider application than merely the use of degrees of force. It applies to the action of every agent. Any agent lacks flexibility, when unable to discharge quickly any action and recoil from it. Sometimes this hindrance is due to the interference of neighboring agents. The part is not distinctly differentiated. Sometimes the inflexibility is due simply to lack of use.

The necessity of flexibility may be illustrated by the action of the tongue. Articulation demands that every part of the tongue should act easily without interfering with any neighboring part. The tip of the tongue must rise while the back of it remains quiescent. The latter must rise without drawing the tip away from the lower teeth and without constriction at the centre. The whole centre must act without any stiffness or rigidity in the muscles at the base.

Observe that the diaphragm must draw in breath quickly, retain it easily, and release its activity instantly. A certain flexibility of the diaphragm is necessary as a part of the work for securing the flexible management of the motor power or even application of degrees of force.

Note also the direct response of the rhythm of breathing to that of thinking. The student should give passages full of excitement, and note that the rhythm of breathing must be first affected by the animation. Passages of great intensity should also be practiced to increase the amount of breath received. Extracts uniting both intensity and excitement, in short, those of every possible variety should be practiced, while the student should see that his breathing is responsive to every variation in degrees of excitement, intensity or other changes.

Sometimes the vocal bands are used in a certain rigid way and lack power to make different degrees of loudness and softness in tone, though this is usually primarily associated with a misuse of the respiratory mechanism.

In the study of the action of any agent or set of agents, or the performance of a distinct function, we can note certain characterictics which should belong to the performance. All such actions should be normal and natural. However extremely accentuated an action may be, it is simply the increase of one or more of the elemental actions of the agent.

The action must also be simple. No great complications or combinations should be permitted. It is equally important that the action of every agent should be easy. This is almost synonymous with facility and flexibility. Every agent ought to be trained to discharge its functions with the greatest possible ease. There must be no apparent limitation; but all as easy as nature herself, as natural as the leaf swaying in the breeze, the rippling of the brook, the bending of the reed, or the song of the bird. No action can be labored, constricted, or fettered and not hinder expression.

The performance of a function must also be definite. This always results from right accentuation of the elemental actions of an agent or part. The right part should be used, the right agent or force applied. There ought to be no waste. Economy implies both ease and precision. Accentuation does not necessarily imply exaggeration. Force must be applied to the right part at the right moment in the right way. Every action should normally respond instantaneously to its mental, emotional, or volitional cause.

Again, it is important to note that flexibility does not belong merely to the volitional parts. The mental and emotional actions must be flexible. Even the subconscious and involuntary elements of delivery must be responsive. This is accomplished by developing the elemental actions, by establishing normal and healthful conditions. Involuntary actions are co-ordinated with a few primary actions. In the same way, sub-conscious elements are co-ordinated with conscious ones.

III. RHYTHM.

Force always acts rhythmically in nature. There seems to be an alternation between that which is strong and that which is weak. The heart beats in rhythm; man breathes rhythmically; all thinking is rhythmic. Hence, all expression must be also rhythmic. There must be alternation between receiving an impression and expressing it, between taking an idea and giving it. The mind concentrates its attention upon one idea, then leaps to another, making a continual rhythmic pulsation.

The whole command of force depends upon the mastery of this sense of rhythm. There is alternation between silence and speech in the pause and the touch. Without such alternation, or the mastery of a few steps which seem to many students ridiculously simple, true flexibility and command of force would be lacking.

Mere action and reaction, or alternation of force, is not necessarily rhythmic. Rhythm implies a certain continuity of conditions. One thing and then another will not make rhythm, but when both are due to sympathetic and continuous application of a force or forces acting in unity, and the alternation is due to the freedom of the outgoing energy, rhythm will be the result. When successive receptions of impressions cause expression without constriction, labor, or too much deliberative action, and awaken sympathetic spontaneous energies, then rhythm is the result. When breathing results from a sequence of ideas in speaking, — that is, impression and expression come into natural alternation, one causing the other, rhythm results.

This principle of rhythm will enable us to realize the true nature of flexibility, and help to establish a sympathetic continuity between preparation and speech, between establishment of conditions and resultant tone. Whenever there is a separation of the two, due to hesitation or any other cause, there will be a lack of rhythm; and actions may follow, but they are chaotic rather than flexible.

One of the first phases of flexibility should be the reception of an impression in silence and the giving of the words in a definite touch. When there is silence and a looking for a word or groping for an idea, the rhythm is lost. Rhythm results only when the reception of the impression naturally causes expression, and when the concentration of the mind upon one idea precedes the utterance of the phrase. All thinking is normally rhythmic, but it may be rigid, broken and chaotic. A stream of water may flow down rhythmically, but if full of chunks of floating ice the rhythm is more or less destroyed. The same is true of the flow of ideas, of the sequence of actions in the establishment of vocal conditions, and in the succession of voice modulations or actions of the body.

The importance of rhythm can hardly be too strongly emphasized. The heart pulsating rhythmically accomplishes an inconceivable amount of labor during a lifetime. The same is true of the diaphragm in the performance of the functions of breathing. In the latter case there is a far greater complexity, because the diaphragm must not only discharge its vital function as the heart itself, but must be brought under the control of the will and made to answer all emotions in expression. When the rhythm of speaking is easy and natural, it coordinates with the rhythm of breathing in life; but whenever there is confusion, when one interferes with the other, sore throat and all sorts of injuries to health result. A study of rhythm enables us to give exercises of the preparatory actions, as has been explained, in such a way that the release allows a sympathetic union between the rhythm of voice and life breathing.

IV. METRE.

We can distinguish between natural and formal rhythm. Natural rhythm is found in breathing as in sleep, the beating of the heart, the peristaltic action of the stomach, and all vital actions; also in the normal succession of silence and speech, the establishment of conditions and active production of tone.

Side by side with such natural modes of rhythm, we have mechanical expressions of rhythm, such as metre. Metre, however, has a natural basis, only it can be more definitely marked and is more objective than the other phases of rhythm mentioned. It can be measured and timed almost like song. It possesses, on the whole, a definite objective quantity, and for this reason is often regarded as one phase of rhythm.

One of my ablest teachers said to me, " Have nothing to do with rhythm; it is singsong." That is, to him all rhythm was a kind of continuous alternation such as we find in song. It is extremely important to distinguish between informal and formal rhythm, between rhythm found everywhere in nature and the objective, not to say artificial, rhythm which we find in song and metre.

We cannot have too much natural rhythm, and it must always lie at the basis of formal rhythm.

Metre is one of the most important phases of formal rhythm. It is an endeavor to express the spirit of thinking and feeling through an arrangement of syllables and an alternation of syllables of regular, similar, and dissimilar lengths or accent and lack of accent. It always implies a sequence of similar rhythmic feet.

The chief use of metre is to express the rhythm of feeling rather than that of thought. It is used chiefly in poetry, and suggests by a regular succession of feet the sequence of emotional pulsations.

Emotion is more rhythmical than thought, as has been shown by Herbert Spencer in his "Essay on the Origin of Music." So long as thinking is rhythmic it is flexible and variable, while feeling is more continuously rhythmic. Intellect is expressed by the rhythm of alternation, but emotion is more naturally revealed in musical or formal rhythm, — that is, in the proportion of heavy and light pulsations in continuous tone. Metre is a suggestion of this in words.

Metre is regarded by many as an artificial or incidental form chosen by the poet for oddity's sake, without having any genuine element of expression. This is a great mistake. When a poem is well written, its rhythm is part of the inevitable manifestation of the feeling or spirit. It should be in no sense artificial or mechanical.

Poets often come under the domination of artificial metrical rules. When metre gets into this state there is sure to come some Walt Whitman to rebel against it and profess to overthrow it entirely. Whitman, in his best work, has emphasized the natural as opposed to formal rhythm. Still, even in his work we have fine examples of formal rhythm. His simplicity, his genuine realization of ideas, his honesty in giving expression to his feeling, have brought forth some deeper realizations of the nature of rhythm, and often in metre he shows himself a master, as, for example, in "The Captain." Although in this poem there are imperfect rhymes showing something of his rebellion against conventional rules, his rhythmic movement and his change in the length of lines at the close of each stanza, are really expressive of the deep throb of feeling and highly artistic. Let no one, therefore, delude himself into the belief that Whitman or any other poet has shown metre to be only foolish, conventional, or accidental machinery. A failure to interpret accurately the rhythm of a poem is a failure to interpret its spirit. The universal neglect of metre by speakers, and even by readers and actors, is indeed strange. No cultivated person should fail to appreciate the true nature of metre. He who neglects it misses one of the charms of poetry.

Metre should be mastered as an aid in developing rhythmic agility of the voice, for it is one of the easiest methods for the development of a sense of rhythm.

Metre is important, also, because of its relation to articulation. Every word is some kind of a metric foot or combination of feet, and without a mastery of metre there will not follow that true quantity characteristic of the best speech. Such a mastery aids in developing a sense of form to which metre primarily belongs but cannot be indicated in print.

It is a part of vocal expression, and can be indicated only through the living voice. One chief reason for its neglect is the existence of misconceptions and perverted views regarding the function of the voice. Persons in modern times can see beauties everywhere before they perceive them in human tones.

If we examine books on metre we usually find an enumeration of names of feet, but hardly an indication that these mean anything. Ruskin's small book is an exception, but the majority of books treat the subject as if it were merely a topic in mechanics. It must be studied as a part of living expression. The peculiar names for the feet amount to little. What is needful is to recognize the spirit and meaning of the rhythmic measure, and master its rendering by the living voice.

What is the meaning of metre? It must be felt and realized. The same foot in different poems has a totally different application.

Rev. William R. Alger, who gave much attention to the study of metre, expressed its meaning in these words: " The essential kinds of rhythm," (he meant rhythm as the basis of metre), " are three, the others resulting from combinations of these. The first is the rhythm of diminishing stress, the impulse beginning with full force and tapering away. The second is the rhythm of cumulative stress, the impulse waxing in vigor as it proceeds. The third is the rhythm of balanced stress, the impulse depositing its chief emphasis at neither extreme, but in the middle. The first of these rhythms is the dwindling expression which befits grief, loss, weakness, collapse and despair or calm and solemn lamentation. The second rhythm, that of cumulative stress, is the climacteric expression which belongs to all kinds of joy, gain, power, hope, inspiration, and fulfillment. As the earlier mode carries depression or lamentation, this carries exultation and excitement. The exhortation of Campbell to the Greeks in their war against the Turks points with its electric fire:

> 'Again to the battle, Achaeans!'

The third species of rhythm is the poised expression suited for those modes of experience which join the beauties of the two previous kinds of movement, blending the tearful pathos of the one with the inspiring energy of the other, in a beauty whose charm surpasses both."

Mr. Alger, in this, forgot that the trochee is tender in the sense of joy and love as well as in that of sorrow.

One who will seek for the spirit of a poem will usually find it embodied in its metric structure; but no one word must be taken to express the spirit of metre. Great mistakes have been made in stating in a mere phrase the meaning of metre. The real feeling of a poem comes usually from a combination of feet. Hardly a poem can be found in the language with only a single foot. The great masters of metre usually produced their effects by some change of the feet. Metre must, therefore, be studied in some such large sense as Mr. Alger suggested.

Note, in the first place, that strength emphasizes phrases cumulatively. It is apt to render the close of a phrase more energetically than the beginning, while weakness reverses this and gives greatest energy to the first of the phrase, relaxing toward the last, giving the successive phrases a drooping effect. The "dropping" of the voice at the end of a clause or sentence is a well-known fault, which Mr. Alger explained as the emphasis of weakness. Certain reflective or hesitating actions of the mind, or too great deliberation produce the same result. A tender persuasiveness is always relaxed toward the close of the clause or sentence. Sermons and speeches often have these differences. I have seen a preacher get into a rhythmic or metric movement and he could not get out of it nor did he know what was the trouble.

Here we have something of a key to the difference between the iambus and the trochee. The iambic foot denotes resolution, intensity, progression. It is more or less heroic, and often is somewhat martial in its intensity. The trochee, on the contrary, suggests delicacy, uneasiness, a kind of recoil in the midst of hesitating feeling. Notice that the most plaintive and tender of hymns are apt to be in this foot.

Where deep feeling is expressed in the iambic it is generally intense. The simplest hymn will illustrate this principle. Someone will ask why "Onward Christian Soldiers" is trochaic. Though heroic, this poem expresses restlessness of the marching forward of the soldier rather than his resolution.

In the "Midsummer Night's Dream" the fairy comes gliding in with a tripping dactyllic metre, which changes to the trochaic and then to the iambic in the last two lines on account of change in the thought, feeling, and resolution.

Over hill, over dale,
  Thorough bush, thorough brier,
Over park, over pale,
  Thorough flood, thorough fire,
I do wander everywhere,
Swifter than the moones sphere;
And I serve the fairy-queen,
To dew her orbs upon the green.
The cowslips tall her pensioners be:
In their gold coats spots you see;
Those be rubies, fairy favours,
In those freckles live their savours:
I must go seek some dewdrops here
And hang a pearl in every cowslip's ear.

"A Midsummer Night's Dream" Shakespeare.

The change to iambic in the last two lines indicates an underlying change in the attitude of the mind too delicate for direct expression in words. To say, "I must be about my business," would be prose to us. The change may be unconscious, and this is true of all genuine metre. It expresses the unconscious side of feeling, the hidden mood.

The spondee, in contrast to this, is sedate and balanced. It expresses reverence and awe. It implies a still slower movement and weighty progression. The most reverent hymn employs this foot, or, at any rate, the spondee predominates. In Gray's Elegy it suggests the contemplative, meditative mood.

Some emotional poems that seem to be iambic contain many spondees, if this foot does not predominate.

The anapæst corresponds in triple metre to the dual iambic, and is similar in meaning. They are often used together. Observe a beautiful combination of them in Goethe's "Erlkönig." The dactyl has the same correspondence to the trochee and combines with it in the same way. The amphibrach is often used in joyful or jovial expression.

The difference between the dual and triple classes of metre is, that the latter indicates greater flexibility of movement, and is more elastic and gliding. If the dual rhythm suggests the walk, the triple hints at the run. In general, the anapæst is similar in meaning to the iambus, the dactyl to the trochee. In fact, these are more alike than the iambus is to the trochee or the anapæst to the dactyl. The trochee seems to be combined with the iambus only by means of the choriambus.

Exercise 90. Metre and Flexibility.

The "starts" may be practiced with all metric feet on different syllables, for example, "la." These "starts" in the various feet may be used as an added exercise for co-ordination of primary conditions, as an aid in developing the sense of rhythm. The metric feet in all the metres may be arranged in syllables and prolonged. This not only develops continuity of conditions but the sense of rhythm. Rhythm is an aid in the preservation of such conditions.

The student should arrange short extracts from various poems illustrating all the metres until there is an awakening of his rhythmic instinct in such a way as to realize not only the nature but the spirit and meaning of different kinds of metre.

One method of studying metre is to select some author such as Shelley, particularly strong in metric expression, and observe the subtle transitions and variations when passing from one foot to another in the same poem. Note, for example, in "The Skylark," how often, in changing to the long line at the end of the stanza, there is a change from trochee to iambic. The short lines are the abrupt exultant emotions expressive of the independence and lofty flight of the bird, while the long line expresses often the coming down to earth and realizing the slow plodding of one's own walk. Hence, the frequency of iambic feet in this long line.

Select some strong poem, and, after studying its metric form, interpret its movement by the voice. Let there be genuine active emotion, and notice that while at times there are seeming discords of metre, the change is really an element of expression.

For example, in the following lines from Coleridge's poem on "Mont Blanc" the reader is tempted to change the accent of the word "ravines" to the first syllable, so as to make all the line iambic, but this is a blunder. By the change of foot the poet makes one feel as if he stood on the edge of a chasm, requires a pause, and helps to a realization of the picture.

> Ye ice-falls! ye that from the mountain's brow
> Adown enormous ravines slope amain —
> Torrents, methinks, that heard a mighty voice,
> And stopped at once amid their maddest plunge!
> Motionless torrents! silent cataracts!
> Who made you glorious as the gates of heaven
> Beneath the keen full moon? Who bade the sun
> Clothe you with rainbows? Who, with living flowers
> Of loveliest blue, spread garlands at your feet?

From "Hymn to Mont Blanc" Coleridge.

Notice how, in the best poetry, writers change from one foot to another. There is constant variation. Often a seeming discord is introduced into the best poetry. Do not regard this as an imperfection, but study to find the author's meaning.

Render a short poem or extract in each of the metric feet, study its meaning, and the way in which the voice expresses it.

RECESSIONAL.

God of our fathers, known of old —
  Lord of our far-flung battle line —
Beneath whose awful hand we hold
  Dominion over palm and pine —
Lord God of Hosts, be with us yet,
Lest we forget — lest we forget!

The tumult and the shouting dies —
  The Captains and the Kings depart —
Still stands Thine ancient sacrifice,
  An humble and a contrite heart.
Lord God of Hosts, be with us yet,
Lest we forget — lest we forget!

Far-called, our navies melt away —
  On dune and headland sinks the fire —
Lo, all our pomp of yesterday
  Is one with Nineveh and Tyre!
Judge of the Nations, spare us yet,
Lest we forget — lest we forget!

If, drunk with sight of power, we loose
  Wild tongues that have not Thee in awe —
Such boasting as the Gentiles use,
  Or lesser breeds without the Law —
Lord God of Hosts, be with us yet,
Lest we forget — lest we forget!

For heathen heart that puts her trust
  In reeking tube and iron shard —
All valiant dust that builds on dust,
  And guarding calls not Thee to guard —
For frantic boast and foolish word,
Thy mercy on Thy People, Lord!

Kipling.

Read some poem in this book printed as prose. Do you realize at once the difference between it and prose? Can you easily arrange it into lines and feet? The student should make careful study of poems printed in this way, and observe the nature and character of the metre and length of line. They are not so printed because the metre or the length of line is immaterial, but to enable the student to arrange the poetic form for himself that he may realize its nature and importance. A poem so printed should be written out in poetic form by the student.

Render a poem, first accentuating the mere metric structure, and, secondly, giving the deeper and more natural rhythmic alternation between thinking and speaking. While doing this note that the rhythmic character of the passage has not been decreased but increased, and the spirit of the metre made manifest.

V. DEVELOPMENT OF FLEXIBILITY.

This subject of metre has been discussed because it is so commonly misunderstood and so frequently considered a mere mechanical matter. Its relation to voice training should be fully apprehended.

There is also a special reason for the mastery of metre in the development of flexibility. The practice of metre affords one of the finest exercises for this. The alternation of strong and weak syllables is an exercise not only of accent, and thus helpful in developing pleasing speech, but also it is an exercise in accentuation.

The Greeks held that there were two accents, the thesis and the arsis. One is the placing of the foot, the other the lifting of the foot. The metric foot was illustrated by the action of the foot in walking. The voice must make the heavy accent, giving a strong ictus to certain syllables and a lighter to certain other syllables. The heavy and the light constitute one of the charms of all speaking, even in everyday prose.

Whether metre is a matter of accent or of quantity has been long discussed. Without going into this difficult question and into the various experiments conducted in the physiological and psychological laboratories we must recognize that both of them play certain rôles. Sometimes one plays a more predominant part than the other, but in every instance, in English metre at any rate, accent has something to do with it. It is this aspect of metre which is important, and its mastery brings repose, dignity, and beauty to human speech.

The universal neglect of metre has had a disastrous effect upon ordinary speech. Pleasing rhythm and metre, especially when united in the rhythmic alternation of silence and speech, when rightly co-ordinated and harmonized, constitute one of the phenomena of beautiful speech.

Professor Barber, a teacher of former years, marked such a line as "On Linden when the sun was low," and called for practice of the opposition between the strong syllables and the subordinate ones. He called the balance of these poise. Such an exercise can hardly be too strongly recommended. There is little danger of exaggeration of metre in English, especially of the elements associated with accent. Such practice does not produce singsong. On the contrary, it tends to help the vigor of the touch, and when co-ordinated with other modulations of the voice may prevent the mechanical and emotional drifts which give rise to singsong. As a matter of fact, this is not a fault of rhythm but of melody. It is giving up the inflexions and changes of pitch and merely allowing the assertion or exercise of the rhythmic element. In short, faulty speech tunes are due to a failure to harmonize rhythm and melody.

One point regarding the importance of metre is shown by the fact that metre is not the mere relationship of syllables, but is really found in everything we say. Everything, even prose, when continuous and expressive of conditions, is either trochaic, iambic, dual, or triple in metre. The common metres are really phases of movement. Many a speech is given trochaically, that is, in a certain mood. Others are given with a certain progressive and intense, resolute way that is really iambic movement.

It may be wise for the student to take a poem and read it with the spondaic, the iambic and the trochaic movement. Almost any poem written in these metres is capable of such perverted rendition. Sometimes this wrong use is one of the best methods of awakening a sense of metre and its meaning and the interpretation of its spirit by the voice. Who has not heard a poem read as prose? or in a different metre from its own?

VI. MOVEMENT.

The climax and glory of vocal expression is a certain modulation of rhythm by feeling, a sense of importance and weight or degrees of control and excitement. This climax of flexibility belongs rather to vocal expression, but all work in flexibility will lack its highest significance and application unless the student carries his work into vocal expression of the simplest prose as well as of the highest poetry.

Monotony of movement is the worst of monotonies. It means that every successive idea has just the same value. There is no sense of importance. It results often from inflexibility of the whole vocal mechanism, but more frequently from lack of sympathetic assimilation. The ideas are taken merely as ideas, and are announced for their own sake without being sympathetically weighed by experience.

How can we realize the nature of movement? First, render successively two passages totally different in spirit. Then give successively two passages that seem similar. The wide difference between the first two passages which seem so much alike can be easily observed, and even these when definitely and intensely realized stand in great contrast. Other exercises might be given, such as reading a passage with different degrees of earnestness, observing the modulations of the voice which are especially changed to express a greater degree of earnestness.

Still another way to realize the nature of rhythm is the practice of sudden changes in situation, excitement, or control.

It will be observed that one of the most important of all transitions is in movement. The fundamental key to movement is sympathetic identification. The function of ideas is expressed in form; their feeling or the emotional response to them by modulations in resonance. The sense of importance or the weighing of the relative flow of ideas and the degree of control over feeling, are expressed by variations of mood. It is by rhythm that time is measured, and that we give to successive ideas our indication of their importance. Monotony of rhythm means neutrality of mental attitude, a failure to express the real self. Movement is the expression of the effect of our ideas upon our deepest life.

Exercise 91. Rhythmic. Flexibility.

Flexibility, as shown especially by transition in movement, not only gives ease to the speaker and pleasure to the hearer, but impresses upon others better than in any other way the relative value and importance, the degree of control of passion or intensity, and the degree of dignity of the ideas expressed.

The Bridegroom in his robe of white
   Sat at the table-head —
" Oh, who is that who moans without? "
   The blessed Bridegroom said.
'T was one look'd from the lighted hall,
   And answer'd fierce and low,
" 'T is the soul of Judas Iscariot
   Gliding to and fro."

'T was the soul of Judas Iscariot
  Did hush itself and stand,
And saw the Bridegroom at the door
  With a light in his hand.
The Bridegroom stood in the open door,
  And he was clad in white,
And far within the Lord's Supper
  Was spread so long and bright.

The Bridegroom shaded his eyes and look'd,
  And his face was bright to see —
" What dost thou here at the Lord's Supper
  With thy body's sins? " said he.
'T was the soul of Judas Iscariot
  Stood black, and sad, and bare —
" I have wander'd many nights and days;
  There is no light elsewhere."

'T was the wedding guests cried out within,
  And their eyes were fierce and bright —
" Scourge the soul of Judas Iscariot
  Away into the night! " . . .
'T was the Bridegroom stood at the open door,
  And beckon'd, smiling sweet;
'T was the soul of Judas Iscariot
  Stole in, and fell at his feet.

" The Holy Supper is spread within,
  And the many candles shine,
And I have waited long for thee
  Before I pour'd the wine! "
The supper wine is pour'd at last,
  The lights burn bright and fair,
Iscariot washes the Bridegroom's feet,
  And dries them with his hair.

From "The Ballad of Judas Iscariot" **Robert Buchanan.**

VII

THE SHAPE OF THE SOUND WAVES

XXIV. SECONDARY VIBRATIONS

Sound, as has been shown, is a succession of vibrations or waves of the air, the length of these giving the pitch; their amplitude causing loudness; their form or complexity affording the necessary quality usually called resonance.

The improvement of two of these in the human voice having been discussed, we now come to the third. The facts regarding the form of the sound waves and the improvement of the secondary vibrations are far more complex and difficult.

The form of the sound waves is due to certain accessory vibrations superimposed upon each other upon various pitches higher than the fundamental note.

Although this description is in accordance with the science of sound so far as known, and seems simple, yet in relation to this third point, the shape of the sound waves, we encounter innumerable difficulties and unanswered questions. Musical instruments have little control over secondary vibrations. Their resonance is determined by their construction, their form, their size, even the materials whence they are made. The player modulates them chiefly by his use of force. The violin, the most resonant and expressive of all musical instruments, has little power of modulation over resonance, as compared with the human voice.

I. OVERTONES.

The first element in the shaping of sound waves is caused by vibrations or waves simultaneous with those which are primary or which give the pitch. To illustrate, if we stretch a string and sound it, the vibration of the string in its complete length causes the pitch of the tone and gives the primary or fundamental vibration; but simultaneously with the waves of the string in its entire length, it vibrates in parts, giving still other vibrations shorter and hence on a higher pitch. If we touch the string in the centre with a paper knife we produce a tone an octave higher. This is the first of the secondary vibrations or overtones. By touching the string in different places still others higher in pitch may be heard. The touch of the paper knife of course eliminates the vibrations of the string in its entire length and reveals those an octave higher. The string is divided in parts according to regular mathematical ratios. The primary and all these secondary vibrations, of course, are simultaneous, making a sound wave very complex.

Virtually no simple sound, that is, a sound without secondary vibrations, exists in nature. The maker of a tuning fork endeavors to eliminate all overtones so as to emphasize the fundamental vibration or note, but he is not wholly successful.

These overtones, after some practice, can be heard by the ordinary ear. Notice the ringing of a bell or the note of a piano or organ as the tone dies away. Helmholtz recommends the sounding of a note on a piano and then giving the key on one of the overtones. After releasing this the overtone will still be heard because by this means attention has been called to this particular overtone.

The possible shapes in a sound wave, the number and changes of the overtone or secondary vibrations seem innumerable. Some are agreeable and constitute the beauties of an instrument of music. Others are more or less disagreeable. A tone is pleasant in proportion to the number and the accordant or harmonious relations of the overtones; and disagreeable in proportion to accentuation of discordant overtones.

In the construction of a piano, long years of experiment have been required to eliminate discordant vibrations and develop accordant ones. Among the few good makers of pianos, investigations have been conducted for many years in order to accentuate the right or beautiful secondary vibrations and eliminate those which are disagreeable.

In the science of sound it has been discovered that the number of overtones in a violin is twenty-one; in a flute, fourteen. The number and the character of the overtones constitute the difference between one musical instrument and another, and one voice and another.

II. SYMPATHETIC VIBRATIONS.

The shaping of the sound waves is also affected by what may be called sympathetic vibrations. What are these and how do they differ from overtones? When two strings are stretched side by side and attuned to the same pitch, if one be sounded the other will also sound. If we sound one of the strings, and then with the hand stop its vibrations, we can hear the sound from the other string, or, if we sound a tuning fork and hold it until the sound becomes so faint that we cannot hear it, and then place it over the mouth of a bottle and pour in water until the pitch of the chamber corresponds to that of the fork, the notes will again be heard.

If we sound a tuning fork and hold it until it is no longer heard and then set it upon a board the sound will be so reënforced that it will once more be heard.

Touch the key of a piano in such a way as to lift the hammer from the string without producing sound, next give the same note by the voice or another instrument and then stop; the string will be heard to sound.

By attuning strings in different pitches, bringing out and thus strengthening various overtones by sympathetic vibrations, we can greatly increase weak overtones and produce much more harmonious results. Greater volume can also be given in this way since the fundamental as well as the secondary vibrations may be strengthened.

The science of sound distinguishes two forms of sympathetic vibrations, consonance and resonance. We may suspend the violin string over a rod and stretch it by weights until it exactly corresponds in tune with a string on the violin, but the sound is very weak. The string on the violin is fuller because it rests upon the bridge which directly connects it with the instrument. This is called consonance. Resonance may be illustrated by sounding a tuning fork and holding it over the embouchure of organ pipes. At the one which corresponds in pitch the pipe will sound as if air were blown into it.

This distinction is practically overlooked in the discussion of the voice because consonance and resonance act together. The word " resonance " is often used as including also consonance. It is also often employed as a broad popular name for all secondary vibrations, whether due to overtones, to reverberations and sympathetic vibrations or the strengthening of both the fundamental note and any of the overtones. The French word " timbre " is also used in this broad sense, as is tone color, but on account of the need of some word to express the emotional modulation of all the secondary vibrations I always confine tone color to that universally overlooked phase of vocal expression.

The songs of birds form one of the most interesting though little investigated phases of sympathetic vibrations. The most musical birds have a surprisingly crude syrinx which corresponds in the bird with the larynx of animals. If anyone will observe a little canary singing he will see the vibrations of all parts, even of every feather. Birds have air chambers through the different parts of the body, and all of these are brought into sympathetic vibrations when the fundamental note is given in its voice box. The marvelous volume of the sound as compared with the size of the bird is something astonishing.

Three bell birds were brought to New York, but unfortunately they died. It has been said that by swelling out a small protuberance under the bill they could be heard a great distance. There was marvelous strength to the tone, somewhat analogous to the howling monkeys.

The most beautiful illustration I have ever found of sympathetic vibration is observed in the so-called "trumpeter." This bird, about half as large as a hen, though with longer legs, will utter two or three "cheeps" not stronger nor more musical than the note of a small chicken, and then will begin its trumpet note which is a totally different sound. Its whole body seems to quiver; the feathers rise and vibrate extremely. The tone is most rich and musical.

Few investigations have been made as yet regarding this marvelous tone. Some think that this bird has a kind of larynx which extends around the body under the skin, but this has been found untrue. The gentleman in charge of them in the Zoölogical Gardens in the Bronx thinks that the tone is made inside of the body and is totally separated from its chirp. It certainly sounds very different.

I give it as my opinion, though I have not been able to make all the experiments which such a statement demands, that the "cheep" is made inflexionally and without any sympathetic vibrations, but the instant the trumpet tone begins it is sustained on one pitch and the whole body is brought into sympathetic vibration. The bird must chirp on beginning his trumpet tone. He then suddenly expands, the feathers extend, and the whole body vibrates. This vibration can be seen plainly by the eye while its ordinary chirp is purely local with the body quiescent.

III. SECONDARY VIBRATIONS OF THE HUMAN VOICE.

We find all the phenomena of the accessory vibrations in the voice. The chest chamber, for example, when full of sympathetically reserved breath, is put into tune, or into a condition favorable to vibration. It strengthens and shapes the tones made by the vocal bands in the same way that the chamber of a violin strengthens and harmonizes the vibrations of the strings. The vocal bands seem to act like a string; that is, they make additional vibrations higher than the primary one that gives the fundamental pitch. Next we note the whole voice box or larynx with the false vocal chords and the "pockets" between these and the true chords, and all parts of this box, whatever their other functions, add also by consonance and resonance secondary vibrations to the primary one.

Every chamber in the head similarly affects the tone. In fact, the vocal instrument consists of the whole body; sympathetic vibrations come from every part. Hence, conditions of health and modulations of the muscles, through sympathetic response to feeling, may give by accessory sympathetic vibrations great richness to the voice.

Breath in the lungs adds greatly to the resonance. When constricted we have the worst abnormal qualities or faults, such as throatiness, nasality, or flatness. When the pharynx is open, the tone is open, free, and rich;

the pharynx constituting the key to the secondary vibrations of all other parts, just as the larynx is the key to the primary vibration. We must first have primary vibrations from the vocal bands, and next an open, free pharynx before all the overtones and sympathetic vibrations can be brought into harmony. Any constriction of the pharynx eliminates or perverts all the overtones.

The narial chambers are of great importance. Their constriction by abnormal action of the soft palate or the muscles at the summit of the pharynx or at the back of the tongue perverts some of the most beautiful elements in tone. When the posterior nares, or other nasal chambers, are filled with mucus, or injured by disease, the voice is affected. Both the vibrations of the upper and of the lower parts of the narial chambers should be perfectly free and unimpeded. Nasality, the most disagreeable of faults, is a perversion of these vibrations. All the chambers of the head or skull affect the tone; it is said that disease in any sinus affects the voice. In tenors especially the bones of the head vibrate.

The shape of the mouth chambers mold tone into the various vowels by the modulation of the secondary vibrations.

Last, the whole body serves as the sounding board of the voice. Emotion diffuses itself into every part and changes the texture of the muscles. With this comes a corresponding change in these vibrations. Feeling may permeate all the muscles of the body making them soft as jelly or hard as flint according to its character. The result is a corresponding change in the secondary and sympathetic vibrations giving the voice that infinite variation of coloring which constitutes the glory of true vocal expression.

The story is told of some students who in a freak painted their college bell. It was ruined. Some years ago a beautiful bell was placed in a church tower and its tones were so rich and musical that the whole neighborhood was charmed. All at once the sounds changed. The authorities of the church sent to the factory and said: "Our bell has changed its tone, and we do not like it so well. What is the cause?" A specialist was sent and he found that the sexton had oiled the machinery and a few drops had fallen upon the edge of the bell.

In the same way a slight constriction in the tone passage may cause a most disagreeable tone. The ear can distinguish the difference in quality between a wooden and a silver flute, though keyed exactly together; differences between the tones of two violins made by different makers can be detected; the smallest obstruction, change, or bruise on a piano will affect its tone unfavorably. Such changes, however, are extremely slight compared with the response of the multitudinous vibrations of the voice to changes in the human body in response to human feelings. When the body has been trained into oneness, when constrictions have been removed from the tone passage, and the voice has been "placed" with every part performing its normal function, then the least change in imagination and feeling will affect the vibrations of the voice.

There seems nothing exactly analogous to this modulation in musical instruments. In the organ, the king of instruments, we have different stops which cause an analogous variation, but how poor are the changes compared with a pleasing, well-trained human voice, and what vast and cumbrous mechanisms are necessary to produce the variations. The voice makes all variations with the same body, the same organs by a simple change of texture which can never be produced by any mechanical instrument.

In the voice itself this can only result from carefully trained organs responding to genuine imagination and feeling. No vibration can be made beautiful by manipulation. Speech can be rich and sympathetically vibratory only when the emotion is normally diffused through the whole nervous system.

XXV. THE DEVELOPMENT OF SECONDARY VIBRATIONS

All the various elements, classes, or kinds of secondary vibrations are intimately connected with each other. In developing any one, we more or less improve all the others. We are brought naturally to secondary vibrations by the mastery of the preceding steps, and in fact, if the exercises have been properly mastered, the resonance of the voice has been constantly improving though gradually and unconsciously.

In general, whatever will bring all parts of the body into sympathetic relationship, whatever will remove constrictions from the tone passage or vocal mechanism, or develop the right functioning of the parts and establish right conditions will improve the overtones and all the secondary vibrations.

Important as these steps are, however, they are indirect, and we must now proceed to a closer and more immediate study of the action of the vocal mechanism that produces accessory vibrations.

At the beginning of such development we should carefully note a certain principle or apparent law. If any musical instrument be forced beyond its normal vibration by the action of the motor power, its sympathetic vibrations are lessened. If, for example, the performer on a violin bears too hard on the bow, noise results rather than music. If the bow be too heavy, or made of the wrong material, the rich vibrations are lost and the overtones will be suppressed or perverted. The proper pitch may be given, but abnormal vibrations will be introduced. A piano player produces his ideal effects by the delicacy of his "touch."

Accordingly, in proportion to delicacy of touch and elimination of loudness in any instrument will there be an accentuation of accessory vibrations. If a string be given undue amplitude of vibration, its fundamental vibration will be so extended as to interfere with the breaking-up of that same string into its "nodes." Straining a string seems also to eliminate or pervert both consonance and resonance.

This principle is especially applicable to the voice. If anyone forces his vocal bands, his heavy muscles are constricted and the delicate muscles consequently so swallowed up in the neighboring larger ones, the human or accessory becoming a part of the adjacent animal muscles, that the tone becomes disagreeable. In proportion to the loudness is the elimination of the higher and more delicate secondary vibrations, or a perversion of consonance and resonance as well as an introduction of discordant overtones and sympathetic vibrations.

A single word may be so practiced as to furnish a good test of this law, if not a technical exercise for accentuation of this transcendence of conditions.

Utter the word "home" from Payne's "Home, Sweet Home" with the most intense love of home possible. Repeat this many times, with great relaxation of all parts, great diffusion of emotion, and open and rich vibration. Notice that the fundamental conditions become more and more accentuated. We cannot soften the tone without sympathetic retention of breath. Notice also that control of breath may be mechanical and local, making the tone hard, or the breath may seem to be retained by diffusion of activity through the whole diaphragm and body. In proportion as there is this harmonious activity will there be an increase in sympathetic vibrations and overtones.

From this principle another reason can be seen why care must be taken to master the first steps before beginning the exercises for resonance. The primary vibrations must be easy, pure, agile, and flexible before exercises for secondary ones are consciously initiated.

The voice should at first be exercised with the tone as normal as possible in establishing the primary co-ordinations and conditions, and for developing essential qualities such as freedom, openness, purity, and agility. These restore the vocal organs to their normal functioning and establish right conditions, thus preparing for the later work of accentuating delicate tones and volume.

Exercise 92. Transcendence of Conditions — II.

A primary, if not necessary, step for the improvement of the overtones is the mastery of the power to make the most delicate tone possible on the edge of the vocal bands, while emphasizing all the elemental voice conditions. This delicate tone, however, must be made by economy of the breath expended while reserving the greatest possible amount in the lungs. The tone passage must be as open as possible. Every part must be relaxed and every co-ordination definitely established.

A delicate tone made by the edge of the vocal bands expressive of genuine feeling stimulates the whole mucous membrane and the cells of the lungs; it causes sympathetic vibration in the most delicate parts, from the larynx to the remotest part of the body, because diffusion of emotion brings all parts into harmony and the delicacy of vibration expresses and accentuates their unity.

Give "ah" or an open vowel as soft as possible, prolonging it with simple, steady continuity. Later the tone may be supported on one note and then swung upward a tetrachord.

One of the most important explanations of the effect of such soft tones with emphasis of conditions is found in the fact that they stimulate the mucous membranes. Along the tone passage the membranes are upon concave surfaces. When this passage is closed, or even narrowed, the membranes are relaxed, but in proportion to its openness and freedom from constriction the membranes will necessarily be more active. Close the hand, for example, and observe the condition of the skin in the palm. Then extend the hand. Here is a picture of the membrane in a collapsed or constricted tone passage and in one that is open and free. This sensitive membrane becomes in a properly opened tone passage almost like many drum heads sympathetically responsive to every primary and secondary vibration of the voice. The delicate exercise with conditions accentuated stimulates this membrane to furnish sympathetic vibrations from every part.

Delicate fairy songs, or some use of the voice that implies the greatest delicacy in the modulation of force, are a great help in applying these principles.

The exercise should be carried gradually through the whole range of the voice. Working on the edge of the vocal bands in this way is one of the best means of developing accurate use of the registers, since the vibration is so confined to the delicate edge of the vocal bands that the heavy muscles are left quiescent, and nature has a better chance to adjust the delicate mechanism. In nearly every case the registers are misused from too active use of the heavier muscles. It is also helpful in correcting the evil effects of forcing or the practice of loud exercises adopted by many to strengthen the voice.

Strength of voice, as has been shown under support, is not loudness. By accentuating harmonious reserve of breath and openness of the tone passage a soft tone may have such life as to be heard at a distance. The voice can be strengthened as well as improved in resonance by right practice of delicate exercises.

When loud tones are practiced at first there is an increase of active expenditure of energy rather than its reserve and the true vocal conditions. As a result a voice may be strained and its overtones eliminated or perverted.

We must remind ourselves once more of the principle of support, which is most necessary, that there is a kind of opposition between energy that directly sets the breath into vibration and that which reserves it or establishes the conditions of tone. Whenever we put energy into active expenditure we lessen its retained conditions, or, at any rate, do not increase them in the same proportion. By making a free and delicate tone, that is, by minimizing the active expenditure and directing the will to the diffusion of the elastic expansion, or activity of the muscles reserving the breath, we greatly improve the voice conditions. Such exercises are always necessary before work for volume.

A mere delicate tone, however, will not of itself necessarily improve vibration. Such a tone can be made a means of developing the overtones only by accentuating the fundamental conditions at the same time.

It is very difficult to give an exceedingly soft tone with great accentuation of the retention of the breath and openness of the tone passage. Hence, many wrong methods of softening the voice can be found. One of these is to lessen the openness of the passage, especially the mouth, and to soften tone by muffling it. Another, which has even been taught, is by aspirating it, that is, by wasting breath. This lessens support and the tone drops at the feet; but a soft tone must be heard as far as a loud one, and hence must have the same conditions.

Exercise 93. Transcendence of Conditions — III.

One of the easiest exercises is to render some delicate hum, as in representing the delicate tones which come from bells in the wind and are embodied in the word "ding-dong" in the following old Provençal rhyme, where the fairies are represented as ringing the bells. Such an exercise accentuates conditions, while calling for imagination and feeling to aid in reserving breath, making the most delicate possible tone.

THE BELLS OF ST. JOHN.

Ding-dong, ding-dong,
Now are ringing the bells of St. John.
Who says the prayers, and who rings them so high?
The little children of the sky!

From The Provençal Translated by Grace Rhys.

In the second stanza of the "Bugle Song," (p. 200) is found a delicate and imaginative picture. Render this, realizing fully the atmosphere and feeling, giving the words with great delicacy, purity, and increase of sympathetic vibrations.

Compare the conditions found in "Blow, bugle, blow," with those concerned in this delicate echo. Note especially the greater harmonious extension of activity necessary to support and continue the delicate tone.

In the practice of this anyone can realize that in proportion to the delicacy of primary vibrations will be the richness of secondary ones, and in proportion as we exaggerate the primary vibrations in giving loudness, will there be an elimination of the secondary ones. Gradually these secondary vibrations become so awakened that they belong to the constant use of the voice. The tone becomes richer and more responsive to feeling.

At the last, tenderly,
From the walls of the powerful, fortress'd house,
From the clasp of the knitted locks — from the keep of the
well-closed doors,
Let me be wafted.

Let me glide noiselessly forth;
With the key of softness unlock the locks — with a whisper
Set ope the doors, O soul!

Tenderly! be not impatient!
(Strong is your hold, O mortal flesh!
Strong is your hold, O love!)
"The Imprisoned Soul" Walt Whitman.

In connexion with the rendering of fairy songs another important step can be taken, — namely, the giving of delicate tones with the touch of speech. This is important as the staying of conditions in a delicate tone sometimes interferes with the facility, or rather with the concentrated action of the mind, in expressing itself through decided pitch. The practice of delicate tone is also of advantage in the mastery of touch.

Exercise 94. Imagination and Tone.

A good passage for vibration is the Fairy Song in "A Midsummer Night's Dream." We have here one stanza by an individual fairy which should be given naturally with the touch and rhythm of speech, and then we have the chorus in which the song element will be more pronounced. That should be given with delicate recitative. Use imagination and feeling; soften the tones legitimately, accentuating not eliminating fundamental conditions.

THE FAIRY SLUMBER SONG.

Titania. Come, now a roundel and a fairy song;
Then, for the third part of a minute, hence; —
Some, to kill cankers in the musk-rose buds;
Some, war with rere-mice for their leathern wings,
To make my small elves coats; and some, keep back
The clamorous owl, that nightly hoots and wonders
At our quaint spirits. Sing me now asleep;
Then to your offices, and let me rest.

FAIRIES' SONG.

First Fairy. You spotted snakes with double tongue,
Thorny hedge-hogs, be not seen;
Newts and blindworms, do no wrong,
Come not near our fairy Queen.

Chorus. Philomel, with melody
Sing in our sweet lullaby;
Lulla, lulla, lullaby; lulla, lulla, lullaby:
Never harm, nor spell nor charm,
Come our lovely lady nigh;
So, good night, with lullaby.

Second Fairy. Weaving spiders, come not here;
Hence, you long-legg'd spinners, hence!
Beetles black, approach not near;
Worm nor snail, do no offence
Chorus. Philomel, with melody, &c.

First Fairy. Hence, away! now all is well:
One aloof stand sentinel.
"A Midsummer Night's Dream" Shakespeare.

Give also the song of Ariel as delicately as possible. Conceive his ideal character and enter into sympathy with him. Remember that though Ferdinand hears this sound, he cannot tell whence it comes.

Full fathom five thy father lies
Of his bones are coral made;
Those are pearls that were his eyes;
Nothing of him that doth fade
But doth suffer a sea-change
Into something rich and strange.
Sea-nymphs hourly ring his knell:
Ding-dong.
Hark! now I hear them — ding, dong, bell!
From Ariel's Song Shakespeare.

Repeat "Ding, dong, bell" over and over, with an instrument on one pitch, as a technical exercise for sympathetic vibrations.

Many teachers condemn humming. Some think it makes the voice reedy, others that it is weakening. To these objections it may be answered that all depends upon the way such exercises are practiced. When too much forced, they tend to produce reediness; when taken lazily, or without control of the breath, they certainly are useless and perhaps weaken the voice.

In case of a lack of narial vibration in the voice, humming exercises may be directed toward certain parts where there seems to be rigidity and lack of vibration.

Exercise 95. Narial Vibrations.

Observe the value of practicing " m " with these conditions. Give this with great relaxation of the whole throat, mouth, and jaw, and especially the tongue, retaining a great deal of breath and exercising the fundamental co-ordinations. Be sure that the vibrations of " m " are not localized, but are felt through the whole mouth. This is a wonderfully helpful exercise for the removal of constriction and restoring normal conditions of all the narial vibrations and bringing them into harmony with the mouth vibrations.

Exercise 96. Education of the Points of Resonance.

Dr. Charles A. Guilmette invented a series of exercises for what he called " points of resonance." For example, taking the consonant " n " followed by the vowel " e," he had the student intensely realize and feel the vibration of " n " in the front part of the nose, and then follow it immediately with " e " vibrating in the front part of the mouth, making the vibrations of the two as near the same point as possible. He contended that this developed the vibrations of the lower part of the nose which he called " lower pituitary " vibrations.

He used the syllable " ung " and after making a quick " short u " passed immediately to the " ng " prolonging this sound. This, he held, developed what he called the " upper pituitary " vibrations. These exercises were usually given loud and strong, in such a way as to stimulate, as he contended, the mucous membranes at one particular point. He called the mucous membrane the " phonator " of the voice. Certainly upon the healthful and sympathetic condition of this greatly depends resonance. He selected the letter "l" followed by "eh" and gave it sometimes very softly and at other times as loud and open as possible in order to develop resonance of the roof of the mouth. The word "call" he used in the same way for the back part of the mouth. Possibly he claimed too much for the mucous membrane, but its function has been overlooked.

It must be borne in mind that not only humming but any exercise when practiced too much may develop some one set of overtones at the expense of others, for true resonance of voice depends, not upon one particular overtone, but upon sympathetic relations of all. Let the exercises, therefore, be varied.

It is always dangerous greatly to exaggerate, especially by loudness, the vibrations of some specific chamber or agent, except for some case of special weakness. In using exercises for individual parts, accordingly, vary the vowels or elements, and in the practice for some local vibration endeavor to bring all into harmony.

In the development of resonance, especial attention should be given to the pillars of the soft palate. When these are constricted the voice is hard or wholly lacking in sympathetic vibrations. They pervert more quickly than perhaps any other part, except the soft palate itself, the overtones which give richness and warmth. The back of the tongue vowels, such as "aw" and long "o," should be practiced with the greatest possible openness of the back of the mouth and richness of sympathetic vibration.

Exercise 97.
Harmony of Vibrations.

The word "Om" meaning all, the word for Deity in the ancient Sanscrit, is round, free, and open, and furnishes a helpful exercise for harmony of all the sympathetic vibrations. Can we speak this as the child uttered it, on one sustained pitch, full of devotion? Can we realize something of what Mr. Russell expresses in the following?

OM—A MEMORY.

Faint grew the yellow buds of light
Far flickering beyond the snows,
As leaning o'er the shadowy white
Morn glimmered like a pale primrose.

Within an Indian vale below
A child said "OM" with tender heart,
Watching with loving eyes the glow
In dayshine fade and night depart.

The word which Brahma at his dawn
Outbreathes and endeth at his night,
Whose tide of sound so rolling on
Gives birth to orbs of pearly light;

And beauty, wisdom, love, and youth,
By its enchantment gathered grow
In agelong wandering to the Truth,
Through many a cycle's ebb and flow.

And here the voice of earth was stilled,
The child was lifted to the Wise:
A strange delight his spirit filled,
And Brahm looked from his shining eyes.

George William Russell. ("A. E.")

There is no voice whose secondary vibrations do not need attention. The most pleasing one is often monotonous and does not vary with imagination and feeling. Passages or exercises can be found to correct all abnormal conditions. Young children may sometimes be given birds' songs, the cooing of a turtle dove, or some representative note of the oriole or wood thrush taken from some poem, to realize by observation the beauty of sounds in nature. Poems can be repeated with descriptions of the pine tree, the sighing of the wind, giving forth the soft murmur of tone, such as is heard in the Southern pines. The rolling of the waves upon the shore, falling water, the murmur of brooks, all the delightful music of nature, can be studied to advantage and without too much imitation. If there is reproduction it should be imaginative, sympathetic, and only suggestive, and should always be the result of the impression produced upon the observer and the expression of his feeling.

Can you idealize the voice in the following poetic lines and speak the word "open" with imagination and tenderness? Feel the sympathetic diffusion through the whole body, especially the breath and tone passage, and allow the greatest richness of vibration possible.

A little hand is knocking at my heart,
  And I have closed the door,
"I pray thee, for the love of God, depart
  Thou shalt come in no more."

"Open, for I am weary of the way.
  The night is very black.
I have been wandering many a night and day.
  Open. I have come back."

The little hand is knocking patiently.
  I listen, dumb with pain.
"Wilt thou not open any more to me?
  I have come back again."

"I will not open any more. Depart.
  I, that once lived, am dead."
The hand that had been knocking at my heart
  Was still. "And I?" she said.

There is no sound, save, in the winter air,
  The sound of wind and rain,
All that I loved in all the world stands there,
  And will not knock again.

"The Return" Arthur Symons.

XXVI. EXPRESSIVE FUNCTION OF THE SECONDARY VIBRATIONS

Secondary vibrations are not directly voluntary but spontaneous and subconscious; hence, important and helpful as are the technical exercises suggested, the chief reliance must be upon the awakening of imagination and feeling.

Voice mechanism is so closely connected with thought, feeling, and life that it is the least understood of any part of the human body. No power has been invented by which the voice can be produced in a dead body with anything but a fearful perversion of it. Overtones and sympathetic vibrations are difficult because they are the product not only of the entire organism but the whole man. The permeation of mental and emotional action through the body in a mysterious way attunes the whole organism as the vibratory instrument. The accessory vibrations of the voice, and especially their modulation or use in expression for stimulation and harmonious union, depend upon emotion more than upon technical exercises.

It has been shown that variation of the sound waves in length is the chief element in vocal form, and reveals thought, degree of conviction, and earnestness; that the amplitude of the waves, or degrees of loudness, expresses the demonstrative force of passion.

What then does the shape of the sound waves reveal? What do these secondary vibrations mean? Since they vary in every individual are they not something over which man has no control? Can even the ablest actor conceal his own voice unless he adopts a trick which entirely degrades his art? The secondary vibrations constantly respond to the mind and express imagination and feeling. This can be proved. First accentuating inflexion, change of pitch, and the elements of form, render a simple line and its meaning is felt at once. Change one of these and the intellectual meaning also changes. Then emphasize more the rhythmic pulsation, as expressed in pause and touch and degrees of loudness, or intensity; and a different class and variations or other phases of experience are expressed. In the first case the mind is more active; the man is trying to make clear the meaning; in the second his passional earnestness is aroused.

Now read the same passage imagining different situations: first with joy; then with sorrow or regret; then with indignation, mischief, or anxiety. We may give a sentence the same form or inflexion and yet suggest a variety of experiences. The resonance, the overtones, are varied whenever situation and emotion change.

George has gone to see his father.

Speak this sentence with such elliptical situations as these: before he dies; to get some money; to receive a reproof; to make confession; to plead for reconciliation; in prison; at his inaugural; others can easily be imagined.

The term "tone color" seems best adapted to express this imaginative and emotional modulation of the overtones and sympathetic vibrations. A man may have a voice naturally rich in overtones, but if he lack imagination, feeling, or true responsiveness of these overtones to his emotion, he will speak monotonously and lack tone color. We need such a term to express the emotional modulation or changes in the number and relation of the harmonics and sympathetic vibrations. Accordingly, distinguish between secondary vibrations and their development and tone color, the modulation or use of these in expression.

I. THE RELATION OF COLOR TO FORM.

The nature and importance of tone color can be illustrated by further consideration of the relation of color to form. An abnormal speaker with poor control over his emotions will express them by changing his inflexions.

A tune is usually the result of showing feeling through change of form rather than through modulation of the color of the voice. The "tune" is sometimes more than a matter of technique. The emotion itself is often weak; an ecstatic mood rather than genuine feeling, a sense of the whole situation rather than of the specific idea upon which the mind is concentrated at the time. Genuine emotion is always co-ordinated with thinking. The natural speaker feels what he thinks, and thinks what he feels.

Failure to co-ordinate thought and feeling is directly expressed by a lack of co-ordination of form which reveals the thought, with tone color which reveals the feeling. Failure to realize the language of feeling is the chief cause of the degradation of emotion. Genuine realization of the idea upon which the mind is focussed produces genuine emotion, and this is inseparable from its true language. Weakness in feeling will pervert vocal expression, and wrong vocal expression will eventually cause weakness in feeling. This is an important confirmation of the general views advocated in this book that both vocal training and vocal expression must be primarily improved through the mind.

Naturalness, or the expression of ordinary ideas, depends chiefly upon inflexion, changes of pitch and their union in conversational form. A modulation of inflexion to express feeling is abnormal. The failure to co-ordinate thought and feeling by the will is an indication of weakness in character, and a failure to co-ordinate inflexion with tone color is an indication of weakness in expression. The drawing in a painting is distinct from the color. The drawing may be made in black and white. A painting where the color interferes with the drawing, or the drawing with the color, is not the highest art.

Drawing and color in a painting are not more distinct from each other than are form and color in speaking.

Form expresses the actions of the intellect, color the emotions of the heart. The differentiation and the co-ordination of these two must ever form one of the fundamental steps in a development of true vocal art.

Anyone can take a simple sentence, such as "He fell," and while the inflexions may be kept exactly the same, the sentence may be made to express joy or sorrow, admiration or regret by variation of tone color. The fall may have been on the ice; it may be that of some proud or egotistic person, at which we may smile, or one in character and life causing deep sympathy.

There is a common opinion that tone color is a mere rhetorical term, that words are more adequate than any form of expression.

This is true on the commonplace plane or as regards presentation of mere concepts; but in the expression of imaginative situations and feeling the color of the voice is far more definite. We must not, however, compare the various languages of man, because words or symbols express and stand for ideas, while the inflexions reveal mental processes, and tone color the impressions made by events or ideas upon the imagination and emotions. Each discharges a distinct function. Adequacy comes only from their union; no one of them must be neglected.

The special function of tone color is the definition, so to speak, of feeling. Speakers would be much embarrassed if they could not explain definitely every word they used. If they expressed an idea which they did not truly comprehend they would feel equally mortified; but why should not emotions be defined as well? Why do men read the twenty-third Psalm as if it were a matter of great grief that the Lord was their Shepherd? Why are statements, avowedly and professedly full of joy, given with the coloring of sorrow? It is because no attention has been given to the subject of tone color. It is only the right modulation of the secondary vibrations of the voice in response to a definite imagination of the situation that can define feeling.

We may make inflexions mechanically. They can be brought directly under the control of will, but tone color is less amenable to will. It normally results from diffusion of feeling through the muscles controlling the breath, if not the whole body.

This corresponds to the difference between thinking and feeling. We can control our mind, our attention, or ideas. Feeling is a response to thinking, and, while we may control, intensify, or suppress it, still it cannot be created merely by will. We can turn our attention in almost any direction and hold the mind focussed for a time on any object or subject and feeling may follow. The correspondence between vocal form and coloring is close to that between thinking and feeling. Color without form is meaningless, just as feeling without thought is crude.

The power to define feeling must be developed. Many able speakers have little command of feeling. Some have no power to change it, all their speech being neutral. Why do preachers and speakers, who must command the feelings of the heart, use such a narrow range of emotion? Primarily, it is due to a lack of command over vocal expression. Words are the direct language of ideas, but the modulations of the voice express feeling; hence, neglect or perversion of vocal expression is always associated with absence of clearly defined emotions. To speakers and dramatic artists the importance of a careful study of tone color should not be forgotten. The present lack of appreciation of it seems astonishing.

Work upon vocal training has a special influence over imagination and emotion, and if for no other reason than to obtain co-ordination of thought and feeling, the power of the voice to express one's higher nature should be investigated. There is a general lack of emotion, because of the universal failure to appreciate or command its language.

There exists a tendency, especially in colleges and higher educational institutions, to repress all feeling. Some have attributed this to the scientific spirit, but a great deal of it is due to genuine instinct. Students realize that they do not give right expression to feeling and that there is something weak in their voice modulations, and because they lack the right language they are tempted to repress the underlying feeling. Emotion is feared because they mistakingly think that it leads either to whining or to gush. If men had as good command over tone color, the language of feeling, as they have over words and inflexions, the language of thought, this would not be the case. They would realize that right expression of feeling is as necessary to human happiness and enjoyment as is true expression of thinking.

Can you render the following passage first as mere thought and then with true imaginative and emotional realization of the ideas? What are some of the differences?

HEIGHTS AND DEPTHS.

He walked in glory on the hills;
We dalesmen envied him afar
The heights and rose-lit pinnacles
Which placed him nigh the evening star.

Upon the peaks they found him dead;
And now we wonder if he sighed
For our low grass beneath his head,
For our rude huts, before he died.

William Canton.

II. THE EDUCATION OF FEELING.

The psychic steps for the development of the overtones and sympathetic vibrations of the voice depend upon development of imagination and right feeling.

The most difficult step in education is the training of emotion. Dr. Stanley Hall has said that "one of the important steps in the education of the future will be greater attention to feeling." The chief difficulty has been to find some method by which feeling could be reached and the peculiar character of the different emotions studied. What exercises can possibly be applied to their development?

One point to note is that literature and poetry are permanent embodiments of the ideas and experiences of the race. Hence, their study must always have direct relationship to the education of emotion.

They must be studied, however, in a way to cause the student to assimilate and realize these in himself. He must identify himself in imagination with every situation, ideal, and aspiration. The best — almost the only way to do this — is by using the voice to express their spirit. This tests the degree of identification and assimilation, and develops the feelings of the race in the individual. It demands the awakening and exercising of certain poetic and emotional or sympathetic instincts due to what has been recognized and named the dramatic instinct. By these the emotions can be stimulated and refined, and they all depend upon the use of the voice and its highest possibilities.

However, not only has there been neglect of emotion in education, but a corresponding neglect of its true expression by the voice modulations. The two must be studied and developed together. It is, therefore, necessary to observe still more carefully the nature of feeling and the modulations of the voice which express it.

III. POSITIVE AND NEGATIVE EMOTIONS AND MODES OF EXPRESSION.

When we notice the effects of emotion upon man's body or its expression through the modulations of tone, we become aware of a principle of fundamental importance. All emotions may be divided into positive and negative. Positive emotions have a beneficial effect upon health, while negative ones are injurious.

Joy, for example, causes expansion, exhilaration, quickens both the respiration and the circulation and stimulates all normal functionings of the body. Despondency, on the contrary, or any indulgence in sadness or despair, depresses all the vital functions. The breathing is less in amount and slower, the circulation more sluggish. A still deeper effect is produced upon the metabolism or the chemical changes in the cells.

This distinction between positive and negative feelings is important for right living. Some scientists have contended that negative emotions generate poisons in the system. Joy, love, and other positive feelings, induce a normal chemical action or metabolism in the cells, while anger, grief, and all negative emotions cause abnormal chemical action. An infant nursed by a mother after a fit of anger died from the effects. Many can testify to the feeling of exhaustion, sense of bitterness, and other abnormal sensations in the vital organs after a fit of anger.

Whether these pathological results follow or not, certainly anyone can realize that all abnormal or negative emotions cause abnormal conditions and qualities of voice. Joy makes the tone purer; love makes it more resonant; a sense of peace and contentment tends to correct hardness; courage, resolution, aspiration directly cause increase of support and strength.

With what emotion should we begin the education of feeling and the voice? With that which is most positive, such as love or joy. According to Darwin, voice is evolved from the love principle in nature. Birds sing while building their nests. The bobolink comes north and in the month of May or June his voice rings out most sweetly, but as he goes south he becomes a reed bird in the neighborhood of Philadelphia and still further south, as the rice bird becomes the fat destroyer of the rice fields. Who can recognize the bobolink with his melodious song over the nest of his mate in the New England meadow, when found in the south as the rice bird with his beautiful voice entirely silent?

Love lyrics should be practiced long and faithfully. Love should not be considered sentimental. If necessary use love of nature, of home, of country, of father and mother; but some positive sense of tenderness is necessary to stimulate the higher co-ordinations and conditions of voice.

Joy is also positive. It causes expansion, stimulates breathing, and establishes co-ordinate conditions for primary vibration as love does those for secondary vibration. These, accordingly, should be united in practice as much as possible.

Many have greatly improved the voice by constant recitation of the finest lyrics of the language. These express primary positive emotions. Reciting the best passages as an exercise for imagination and feeling has been commended by the best teachers who have understood the true secret of culture. Such practice has a double effect, developing not only the artistic nature but its language, the overtones and sympathetic vibrations of the voice. The real place for developing emotion is in connection with the voice. Emotion must be expressed before we can realize it, and in the act of expression we can judge of its rank. We thus stimulate and awaken the higher forms of feeling, and above all, co-ordinate thinking, feeling, and willing.

It is important, however, that the voice be rightly used. If true vocal expression has this power to develop noble feelings, perverted vocal expression has equal power to degrade the emotions. Accordingly, we must distinguish not only between positive and negative emotions but between true and false modes of expression.

Nowhere do we realize the lack of true vocal expression so much as in a study of the expressive use of the secondary vibrations. Speakers have been taught to emphasize by greater "stress of voice." This exaggerated increase in the amplitude of the sound waves eliminates, as has been shown, all possibility of modulating the overtones or secondary vibrations. At one stroke such a method eliminates from the voice all higher tenderness, gradations of love and joy, and deeper impressions of the imagination. English elocution for the past hundred years has authorized the use of throatiness, hardness, nasality, and other faults in expression. Tone color is totally foreign to such elocutionary manipulation. It is the modulation by feeling of pure tone. Such faults entirely pervert the secondary vibrations and prevent their modulation by thinking and feeling. Elocution has even taught the expression of awe and sublimity by aspirating tone. This is a kind of breathy manipulation. It also eliminates the harmonious union of overtones and other accessory vibrations and perverts the emotion expressing sublimity by secrecy. Where secrecy seems to be called for in literature the emotion is really awe or anxiety. When the word "whisper" occurs the elocutionist is apt to make it literal. It is not taken in its poetic or imaginative sense. Thus, in Byron's "Childe Harold" describing the excitement at the opening of the Battle of Waterloo,

"While thronged the citizens with terror dumb,
Or whispering with white lips, 'The foe! they come, they come!'"

If the reader takes the word "whispering" literally in repeating the words of the citizens he will pervert the spirit of the poem, — suggesting secrecy instead of anxiety. Words are inadequate to express voice modulations. By " whisper " in such a passage is meant a subdued tone, with intense vibrations revealing deep feeling and sense of danger. A literal whisper would eliminate all possibility of expressing the feeling or spirit of the action, for a whisper cannot be colored. This word is nothing more than a suggestion. The reader must vividly conceive the situation and enter into dramatic sympathy with the citizens whose homes are suddenly invaded by war, whose farms are turned into a battlefield, and who tremble for the lives of their loved ones. Only by modulation of its secondary vibrations can the spirit of such a passage be interpreted by the voice.

Secrecy is apt to be regarded as an exception and expressed by waste of breath. In such a case it becomes abnormal. When expressed as a real feeling it must be suggested by great retention of the breath and intense vibration. Emotion can only be suggested, no idea or feeling can be given; it can only be hinted, and the higher its character the more is this true.

This is only an illustration. Any number far more forcible could be chosen to show violations of the artistic and poetic uses of the voice.

It is well known that a right mode of expression has a reflex influence upon thinking and feeling. Genuine vocal art will lead to higher and more genuine emotion. In the same way, a wrong mode of vocal expression has a deleterious effect upon the emotions it is supposed to express. Not only this, low art, as is well known, connects itself with the lower forms of literature and disconnects itself from the highest poetry.

On account of the universal neglect of tone color this important point may not be understood. The student must look into it and find that whatever interferes with the sympathetic modulation of the color of his voice will interfere with feeling. Whenever a degraded method is used for the expression of feeling the feeling itself will be degraded. On the contrary, by working upon normal emotions and endeavoring to interpret them simply and naturally the voice will be improved and the language of tone color begin to appear.

Tone color is no doubt the highest expressive modulation of the voice. It indicates exalted ideals, imagination, and tenderness, whether in speech or song, and gives one of the highest pleasures found in art.

Many emotions which appear to be negative may be given positive qualities. For example, sorrow has a despairing element which makes our expression weak and negative, but sorrow may be accented as something to be endured or controlled. If one shows entire control of breath, intensity, and right sympathetic modulations of the whole body, expressing greater manliness, heroic endurance, greater courage, then the positive element is expressed.

No emotion, not even an abnormal one, can be fittingly expressed except through some modulation of these secondary vibrations. Even anger must be elevated into indignation and expressed by the modulation of pure tone. The lack of dignity in anger is suggested by jerky rhythm and movement. The quality of the voice must remain as normal as possible, otherwise it is incapable of variation to express mental and emotional attitudes or to bring emotions into contrast. Whenever abnormal qualities of voice are substituted for color we always find a low condition of vocal art.

Only normal and pure tone is susceptible to modulation by imagination and the higher emotions. Such faults as nasality and throatiness eliminate all possibilities of tone color. A throaty voice can express only one line of feeling, such as anger. A flat, hard tone is in its very nature the elimination of all overtones. A faulty voice is always one-sided; only a low aspect or phase of human experience can be expressed. Only a voice whence faults have been eliminated by careful training, one in which positive qualities have been developed, can manifest the higher emotions.

IV. GAMUT OF EMOTION.

The subject of tone color really belongs to vocal expression rather than to vocal training, but it is so universally neglected that its bearing upon the development of secondary vibrations has been discussed. It has also another phase which needs attention. The absence of any realization of the true expression of feeling is more or less responsible for the narrow gamut of emotion in many of our ablest speakers.

Every speaker, reader, actor, or human being, should endeavor to realize and define definitely a number of emotions. A scholarly man would be greatly embarrassed if he could not define definitely a certain thought and express it in words. Why should we not feel equally our shortcomings as human beings if we are unable to define instantly by the modulations of our voice the deepest feelings of the heart?

Some think that men have only a few emotions, and divide these into pleasure and pain, love and hate, and a few others. The best answer to such narrow-minded conceptions of the varieties of human feelings is a study of this very subject of the emotional modulations of the secondary vibrations. I once had an able student to whom I gave the problem to define with her voice twenty different emotions. She said she did not believe there were so many. I told her to try it. She became interested, and brought in as many as twenty varieties of love.

One who has never studied or tried to develop tone color is hardly aware, as this cultivated lady was not, of the great varieties of human feeling. Words can but imperfectly name emotions. It takes the color of the voice to define them. The student will frequently find great difficulty in giving an adequate name to the feeling expressed by a certain line.

Exercise 98. Voice and Feeling.

To realize the real nature and function of secondary vibrations, to stimulate and develop them, and to learn their use, let us take either single words, phrases, lines, or short passages and endeavor to answer a few questions in a study of their true spirit and an earnest endeavor to interpret the emotions they embody.

Can you take the single word "come" from a great variety of passages, or with many different situations? "Oh" or any word or phrase will of course serve as well. Or can you give the word "home" from the following, accentuating the difference in feeling each time the word occurs?

HOME.

Ask'd I the weary wanderer, "Whence comest thou?" "Home, Home, from Home." He sigh'd, with sadden'd brow.
Ask'd I then the peasant boy, "Whither thy way?" "Home, Home, my Home!" He cried in accents gay.
Ask'd I next a smiling one, "Where dwells delight?" "Home, Home, at Home!" Said he, with glances bright.
Ask'st thou me why oft I sigh? Why restless roam? — Home, Home, no Home, I have no more a Home.

From the German. Not known.

What is the difference between the two following sentences? How does the voice express this difference?

In a valiant suffering for others, not in a slothful making of others suffer for us, did nobleness ever lie. . . . Every noble crown is, and on Earth will ever be, a crown of thorns.

Carlyle.

Can you define definitely the feelings found in each of the following lines? What modifications does their true expression cause in the voice?

All art consists in the removal of surplusage.
Walter Pater.

"Creation's heir, the world, the world is mine!"

Come, and trip it as you go, on the light fantastic toe.
"L'Allegro" John Milton.

Joy is the grace we say to God.
Jean Ingelow.

No great deed is done by falterers who ask for certainty.
"The Spanish Gypsy" George Eliot.

Blow on! This is the land of Liberty!
Knowles.

Holy! holy! holy! Lord God of Sabaoth!

"Man is man, and master of his fate."
"Gereint" Tennyson.

Sound, sound the horn!
"Hunter's Song" Barry Cornwall.

'T is man's perdition to be safe, when for the truth he ought to die.
Emerson.

"In His will is our peace."
Dante.

Many can best begin by defining carefully with the voice some marked contrast, such as that between joy and sorrow, or between gayety and seriousness. As soon, however, as they have defined a few that are in great contrast, they should proceed to build up and record definitely poetic lines, or better short passages, expressive of a great variety of emotions. Each should select his own lines, as he will thus take them from poems which he especially likes and he can feel them more intensely.

An important step in the mastery of tone color is to render sudden transitions from different passages of literature and note carefully the nature of the change in feeling and the various changes of the voice necessary to express these. He will observe that change of pitch, movement, degree of intensity, and especially changes in tone color are necessary to express such variations by the voice. These need long, persevering practice. Take specific lines where the transition occurs and repeat a hundred times, or till the mental action and the response are mastered.

There groups of merry children played;
There youths and maidens dreaming strayed.
Oh, precious hours! oh, golden prime
And affluence of love and time!
Even as a miser counts his gold,
Those hours the ancient timepiece told, —
"Forever — never!
Never — forever!"

"Old Clock on the Stair" **Longfellow.**

The skipper he stood beside the helm, his pipe was in his mouth,
And he watch'd how the veering flaw did blow the smoke now west, now south.
Then up and spake an old sailor, — had sail'd the Spanish main, —
"I pray thee, put into yonder port, for I fear a hurricane.

"Last night the Moon had a golden ring, and to-night no Moon we see!"
The skipper, he blew a whiff from his pipe, and a scornful laugh laugh'd he.
Colder and louder blew the wind, a gale from the north-east;
The snow fell hissing in the brine, and the billows froth'd like yeast.

Down came the storm, and smote amain the vessel in its strength;
She shudder'd and paused, like a frighten'd steed, then leap'd her cable's length.
"Come hither! come hither! my little daughter, and do not tremble so
For I can weather the roughest gale, that ever wind did blow."

He wrapp'd her warm in his seaman's coat against the stinging blast;
He cut a rope from a broken spar, and bound her to the mast.
"O father! I hear the church-bells ring, O say, what may it be?"
"'T is a fog-bell on a rock-bound coast!" and he steer'd for the open sea.

"O father! I hear the sound of guns, O say, what may it be?"
"Some ship in distress, that cannot live in such an angry sea!"
"O father! I see a gleaming light, O say, what may it be?"
But the father answer'd never a word, a frozen corpse was he.
"Wreck of The Hesperus" Longfellow.

Sometimes, as in the second of the following sonnets, a sudden transition is called for as an essential part of the poem. Here in one instant the speaker expresses anxiety which is suddenly changed to determination and resolution to escape. The poet indicates this by brackets. Such a transition is perfectly natural, as anyone can realize by observing those made in life from meditative realization to an objective endeavor. Note also the strong contrast between the two poems.

TWO SONNET-SONGS.

I. The Sirens sing

Hist, hist, ye winds, ye whispering wavelets hist,
Their toil is done, their teen and trouble are o'er,
Wash them, ye waves, in silence to the shore,
Waft them, ye winds, with voices hushed and whist.
Hist, waves and winds, here shall their eyes be kist
By love, and sweet love-slumber, till the roar
Of forepast storms, now stilled, for evermore,
Die on their dream-horizons like dim mist.
What of renown, ye winds, when storms are done?
A faded foam-flower on a wearying wave.
All toil is but the digging of a grave.
Here let them rest awhile ere set the sun,
And sip the honey'd moments one by one —
So fleet, so sweet, so few to squander or save.

II. Orpheus and the Mariners make answer

Fleet, fleet and few, ay, fleet the moments fly —
(Lash to light live foam, ye oars, the dreaming seas),
And shall we lie in swine-sloth here at ease —
(Dip, dip, ye oars, and dash the dark seas by),
In swine-sloth here while death is stealing nigh —
(Sweep, oars, sweep, here ripples and sparkles the breeze),
And work is ours to drain to the last lees?
(Drive oars and winds, we will dare and do ere we die).

And if no sound of voice nor any call
Break the death-silence bidding us all hail,
And, even among the living, Fame should fail
To shrill our deeds, yet whatsoe'er befall,
As men who fought for good not guerdon at all,
Peal the glad Pæan! (Steady oars and sail.)
Frank E. Marzials.

In the reading of the Psalms we meet what are known as parallelisms. The universal tendency is to discuss and to name these — as Dr. Driver has done — from an intellectual point of view, but the greatest of these changes, and the only universal one, is that of feeling. Work upon this primary rhythm of ideas and experience is very helpful in mastering tone color.

Why should modulation of the shape of the sound wave by imagination and feeling be so commonly neglected? It is one of the three fundamental modulations of the voice. Whatever eliminates this possibility will, just to that degree, limit expression, and expression of the highest form.

A human being thinks and feels at the same time. While his thinking must be revealed by the form, his emotion must be shown by the color of his voice. Whenever either of these elements is rendered impossible by some vicious method of tone production, then artistic and ideal expression is eliminated.

All vocal expression is founded upon the fact that the voice shall be free to change the length of its sound waves — that is, to make inflexions or to change the pitch in direct response to processes of thinking. Secondly, to express different degrees of force and of control over it by volume and intensity. Thirdly, to take different shapes, or to modulate all accessory vibrations in direct response to imagination and feeling.

A voice is normal only when it has these primary possibilities, and anything that interferes with them destroys the foundations of vocal expression.

XXVII. TEXTURE

Men are very slow to notice the elements of expression in the voice.

Of all modulations, however, the one least easily recognized is that which is here named texture.

Some will feel that texture is another name for tone color, or a different degree in tone color. Certainly in the science of sound we have no means of distinguishing between tone color and texture.

There are, however, many differences which have never been scientifically discriminated. What, for example, are the differences between the modulations of the sound waves for the different vowels and that for emotion? The fact that the difference of the overtones makes different vowels has been discovered, and even the harmonics causing the leading vowels have been named, so that they have been reproduced artificially. The difference between one musical instrument and another in the number of their overtones has been discovered and recorded, but no one has yet found the exact differences between the modulations of the overtones by two different emotions. How can we express any emotion with any vowel and not interfere with its character? How can such changes in the shape of the sound wave exist together without causing interferences.

That we have no scientific method of discriminating the difference between tone color and texture must not deter us from recognizing facts. Truth and a true scientific method require us to recognize facts rather than our own explanations. A fact which we know to be present, though we cannot explain it, demands our careful attention.

I. TEXTURE AND CHARACTER.

That tone color and texture do not mean the same thing is shown by the fact that when interpreting a character like Shylock an able artist expresses by the change in color of his voice all the different emotions felt by the Jew. There is in addition an underlying condition of voice, not the result of manipulation or imitation, which shows that the character is Shylock. The human voice is a marvelous instrument. It can show definitely the conception of some specific personality, and at the same time reveal the thinking and manifest the feeling of such an individual.

As silk, wool, and cotton may be dyed exactly the same shade, and yet exhibit differences in their textures, so the human voice seems to have the power of suggesting something beyond the emotion which is expressed by tone color. It can express not only love and joy but also the disposition and character behind the feeling. Hence " texture " seems to be the best term to name this condition underlying and not displacing tone color. The two are intimately related, but one seems distinct from the other. As secondary vibrations may indicate at the same instant the difference between voices, vowels, and feelings we discover another, the power also to suggest without disturbing its other functions, the disposition of characters.

Texture is certainly deeper than tone color. A speaker or reader or actor may have great variations of tone color and none whatever of texture. One expresses emotion, the other dramatic imagination. Texture is always accompanied by a change in the muscular conditions of the body. Change in the texture of the muscles precedes and seems to cause change in the texture of voice. In general, tone color is simpler and more emotional, or at least more common, texture manifests a different class of realizations.

There seems practically no limit to the variations of the form of a sound wave. Accordingly, it is perfectly conceivable that in some way, not yet explained, the conditions of the muscles and parts of the body modulated in response to the imaginative and sympathetic realization of a character may also cause a corresponding modification of the sympathetic vibrations and overtones, and thus suggest the same mental actions in the voice.

Some may think that texture is simply a matter of physical weakness. For example, in " As You Like It," old Adam should have a voice indicative of the feebleness of age, the texture of Orlando's voice will be firm with the strength of youth, while age causes the difference between the nurse and patient, Shylock and Bassanio. But there is something, or how can a true vocal artist show the difference between two old men such as Dogberry and Verges or two young men such as Mercutio and Romeo?

> Adam. Dear Master, I can go no further: O I die for food. Here lie I down, and measure out my grave. Farewell, kind master.
>
> Orlando. Why how now Adam? No greater heart in thee: Live a little, comfort a little, cheer thyself a little.

It is a remarkable fact that a true vocal artist does not go so far in revealing such characters as to obliterate the peculiarities of his own voice.

Here we have evidence of the marvelous power of the voice. It can manifest commonplace experiences of life, the poetic idealization, and the highest spiritual realization. It can also express sympathetic identifications of one human being with another or all degrees of dramatic instinct. That the voice is capable of rendering all these can be demonstrated, realized, and expressed in his own voice, by anyone who will persevere.

Now, how does the voice reveal such extreme differences? Can we find a hint to solve the mystery? We know that the voice in animal passion causes the whole vocal band and the muscles adjacent to be massed in a larger thicker " chord," while the poetic or imaginative plane uses more the mere edge of the band. In the last modulation, or the expression of spiritual emotion or sense of the sublime, the sympathetic vibrations of the membranes of every chamber in the body are more pronounced. We find also something beyond.

II. TONE AND THE BODY.

Vibration of tone is vitally related to the diffusion of emotion through the body. Texture especially seems an indirect response of the muscles to dramatic instinct. The whole myological mechanism seems to be hard or soft according to the experiences or dispositions of the character. It may be possible that tone color is more nearly the result of diffusion of feeling through the vocal organism, causing co-ordinations and many conditions of the diaphragm and vibratory agencies with the larynx for primary, and the pharynx for secondary and sympathetic vibrations, on the one hand. On the other hand, texture may be the result of deeper feelings or realizations which so dominate the body as to bring into co-ordination such actions of all the parts as to establish what may be called pantomimic conditions of tone. Tone color is that degree of feeling affecting the diaphragm and co-ordinating direct voice conditions in the vocal mechanism. Texture may be a deeper experience resulting from fuller imaginative and passional realization, causing a further co-ordination of all parts of the body and bringing them into a greater unity for vibration. Tone color and texture seem united but this may be because they are simultaneous and all modulations of the voice are simultaneous and must be distinguished. A little observation seems to confirm this suggestion; certainly texture is more intimately related to the modulations of the body than is tone color.

The distinction between tone color and texture is analogous to the difference between attitude and bearing. An inflexion is practically a gesture of the voice. Attitudes of the body are always associated with tone color. When there are no variations or control of attitudes there is no control over tone color. Similarly, texture seems to have direct relationship with bearing. When the bearings of a character respond to the imagination, or when the dramatic instinct is so active as to cause sympathetic identification with a character or situation and the body is so normal and flexible as to respond, then the conditions of the body are modulated thus producing involuntarily texture of voice.

On account of the universal misconceptions and skepticisms regarding the relations of the body with the voice, it may be well to touch upon the subject more definitely and to adopt such expedients as will enable the student to realize their intimate connexion.

If anyone will render the two first of the following passages, giving each its specific spirit, he will discover that the actions and conditions of the body cause certain corresponding conditions, qualities, or textures of the voice.

> "Hence, home! You idle creatures; get you home!"
> "Julius Cæsar" Shakespeare.

> "When a man lives with God, his voice shall be as sweet as the murmur of the brook and the rustle of the corn."
> Emerson.

> Send us your prisoner, or you 'll hear of it.
> "Henry IV" Shakespeare.

Here are also two indignant, authoritative dismissals, one by a Roman Tribune and the other by a king. What are the differences between them? Are these differences due to the fact that the Roman has more petty jealousy, the English king more patriotism and determination to make his kingdom a real unity? Is this difference one of mere feeling, or is it in motive and character? A true artist will give all of these. It may be difficult to define, but the differences should be such that a listener can easily detect them.

Greater differences than these can, of course, be found in the same character; for example, note the two following from Hamlet:

Hamlet. Rest, rest perturbed spirit.

Hamlet. By heaven I 'll make a ghost of him that lets me.

The difference here is due to feeling. A direct experience which always has a more important effect upon tone, but in the other case, when the emotions are similar and the character is different, there is a different kind of modulation. The difference is far more subtle, but it is not the same in kind. To classify the different kinds of vibrations, if it is possible to do so, will be a great help in understanding the difficulties.

There are many other illustrations of the relations of the body to tone. Centrality of breathing can hardly be established without developing centrality or the true poise of the body. When a man stands, with the body not poised but seemingly hung from the hip, the nerves which pass from the solar plexus to the respiratory mechanism will be constricted and very soon he will be seen to change his position. Constricting the other side in the same way, he changes again; hence the uneasiness in his action. The nerves controlling the diaphragm are constricted and there is a corresponding irregularity in breathing, if he is not forced to breathe at the summit of his chest.

Either in speech or song it is the attitude which has the greatest influence over voice. Attitudes express conditions, and these conditions of being are also conditions of tone. The power to stay the attitude in speech or song implies diffusion of emotion through every part of the body and the bringing of the whole voice into vibratory unity.

Other things being equal, those persons who have no modulations of the body by feeling, who have gestures but no attitudes, have also little tone color. The absence of texture and color in most of our speakers is due in part at least to the neglect of any genuine method for the training of the modulations of body by being and unity with conditions of voice. Action is regarded as mere gesture, mere motion, as merely spectacular, merely accidental. Whereas it is the most fundamental of languages, and directly united to conditions of voice if it does not determine them.

The first effect of emotion is upon the body. Pantomime, as has been said, always precedes speech in nature. It supports speech. It transcends speech, and it is the basic condition of true speech. It expresses the man himself, his deeper moods, his deeper realizations, his sympathetic identification with other characters, while the modulation of tone and its articulation in words, expresses more nearly the movement and variation of ideas and emotions.

These three languages are primary. In nature they form a co-ordinate unity. In every animal organism, part is vitally linked with part. Man's body is not built; it grows. No one part can be restricted or used abnormally without some effect upon other parts. Action depends upon the body as a whole. The vocal organism is only a part. Unless the whole is in proper condition how can we expect right action of a part?

One of the essentials in all expression, even in the training of the voice, is to rid ourselves of the universal misconception that action is motion; that it is external and accidental. On the contrary, the sublimest action causes few movements of arm or hands or sway of the body. It is an expansion, a living, a sustained stillness under the dominion of imagination and feeling.

Emotion acts directly upon the body as it does upon breathing, but tone is different. It is a result of conditions, and more or less of a reflex action from pantomimic expression.

It is true emotion acts directly upon breathing as well as upon the body, but the breathing is as much a part of action, if not more, than it is of tone. The tone is the result of action of the breathing, after being attuned by the imaginative and emotional instincts and conditions. All expression in these sympathetic vibrations, especially in the texture of the tone, is more or less the reflex action of pantomimic expression.

If these principles are true, then the body and voice should both be trained for improvement of tone or any phase of living expression.

The first exercise for the body should be more or less independent of those for the voice, but from the very first there should be an endeavor to establish co-ordinations between body and voice through the actions of the mind, and these co-ordinations must grow more and more intimate. The exercises must first heed the actions of the individual parts and restore these to the normal, but from the very foundation some attention must be given to co-ordinate relations. It is my contention that even a specific function, such as the opening of the throat, cannot be secured except through co-ordination with other parts. Certainly this co-ordinate unity of all parts of body and voice and being must more and more be recognized in all true expression if the highest results are to be obtained.

Action precedes speech. When a truth is so intensely realized that action is intensified, it is a part of the preparatory actions for speech. The condition of the muscles is so changed that the voice is effected. It is this pantomimic action that causes change of texture.

We may arrange a law: in proportion to the intensity and precedence of the action, when caused by genuine intensity of imaginative and emotional realization, will be the change in the texture and color of the voice.

Not only is action present in proportion to the intensity of the realization but the same is true of texture. Texture is in some sense the reflex action of pantomimic expression.

The nature of pantomime in our time is almost totally misunderstood. Words are the climactic language for our ideas, but the basis of all expression by signs is action. Science teaches us that it was the first language. The motor centre for speech in the brain is on top of the motor centre for the right arm.

It will be difficult to prove the principles here involved unless the student will experiment with himself through his body and his voice and notice the condition of responsiveness. He will then realize the marvelous truth of these statements.

III. REALIZATION AND TEXTURE.

If texture is, accordingly, the manifestation in the voice of a degree of realization so deep as to modulate the very conditions of the whole myological mechanism, then we can see that it has a broader application than mere dramatic expression or the interpretation of a character.

There is not so much difference as is commonly thought between lyric, epic, and dramatic poetry. All poetry is the "intense realization of truth." To my mind there is a lyric and an epic as well as a dramatic instinct. Poetry is an inherent element in human nature. These three forms of poetry and others also are simply names of different kinds of experiences which come to the child in its earliest realization of life. If this is true and the training of the voice is simply the development of it as the direct manifestation of the realization of thinking, imagination, and feeling then we should not neglect this profoundest expression in the voice of the unity of all faculties and powers which is characteristic of a human being.

Texture of the voice is manifestation of these primary instincts acting in their unity.

Another danger in texture, especially in its dramatic aspect, is the introduction of extravagant manipulation. In some extreme character, such as Stephano in "The Tempest," old Gobbo in "The Merchant of Venice," we are tempted merely to accept some extravagant change in the voice. I saw a very prominent dramatic artist exhibit a lot of marvelous feats in Bottom in "The Midsummer Night's Dream." I say I saw him advisedly, for the effects of such manipulation were not heard in his voice. His voice was his own and remained without any change of texture or tone color. Such manipulations are the degradation of dramatic art. All characters, even in true farce and burlesque, to be dramatic at all, must be realized by imaginative and sympathetic assimilation. This is true dramatic instinct, true dramatic art.

A speech of old Gobbo may furnish a good exercise to test our relaxation of the whole body and the response of every part to our instinct. The position of the feet must not be fixed, nor the back bent, nor any part of the body merely adjusted. A sympathetic identification causes every muscle to become relaxed and all parts to unite in one condition, expressive of our instinctive assimilation, and the voice spontaneously results. It cannot be manipulated into any tones genuinely expressive of the character. The action of both body and voice must be the result of modulation.

Caliban. The spirit torments me. O!

Stephano. This is some monster of the isle, with four legs who hath got, as I take it, an ague.

Caliban. Do not torment me, pr'ythee; I'll bring my wood home faster. . . .

Trinculo. I should know that voice: it should be — But he is drowned, and these are devils. O! defend me! —

Stephano. Four legs, and two voices! a most delicate monster!

Trinculo. Stephano, —

Stephano. Doth thy other mouth call me? Mercy! mercy! This is a devil and no monster:

Trinculo. Stephano! — if thou beest Stephano, touch me, and speak to me; for I am Trinculo: be not afeard, — thy good friend Trinculo.

Stephano. If thou beest Trinculo, come forth.

Illustrations can be found everywhere. Stephano is drunk, but the drunkenness is not the primary element. The character must be under the drunkenness. True dramatic instinct, especially when it manifests itself in texture, must not deal with accidents, but with fundamental conditions sympathetically assimilated.

We can see that lyric expression may call for as intense realization and as deep response in the whole body as dramatic expression.

Take some passage full of tenderness, and note that as the imagination and the sympathies are awakened there is a sense of diffusion of emotion through the body. The texture of the muscles seems to grow soft and the vibrations richer and more sympathetic. The tone no longer appears to come from one spot, but there is a sympathetic vibration through the whole vocal mechanism and body. The sensation is true. We can prove by experiment that the body is vibrating.

> Maid of my love, sweet Genevieve!
> In beauty's light you glide along:
> Your eye is like the star of eve,
> And sweet your voice as seraph's song.
>
> **Coleridge.**

A LOST CHORD.

Seated one day at the organ, I was weary and ill at ease, and my fingers wandered idly over the noisy keys. I do not know what I was playing, or what I was dreaming then, but I struck one chord of music, like the sound of a great Amen.

It flooded the crimson twilight, like the close of an angel's psalm, and it lay on my fevered spirit, with a touch of infinite calm. It quieted pain and sorrow, like love overcoming strife; it seemed the harmonious echo from our discordant life. It linked all perplexed meanings into one perfect peace, and trembled away into silence, as if it were loth to cease.

I have sought, but I seek it vainly, that one lost chord divine, that came from the soul of the organ, and entered into mine. It may be that Death's bright angel will speak in that chord again; it may be that only in Heaven I shall hear that grand Amen.

Adelaide Anne Proctor.

A most important means of realizing the nature of texture is the practice of extreme transitions taken from the simplest poetry. These transitions are also necessary, as has been shown, for a mastery of tone color; but here the realization and experience must become more extreme. In practice, however, there should be little distinction between tone color and texture since all the modulations blend together in unity. The student should centre his attention upon his realization. His consciousness should only be accidentally, so to speak, concerned in recognizing that body and voice do respond, that the complex response does contain all these elements.

These transitions, of course, are not found merely in lyric or epic poetry. They are found in the dramatic, in the speech of individuals. Such changes are continual if there is sympathetic identification with the character. A story teller modulates his texture and shows marvelous changes. For example, observe the extreme transition in this speech of Ingomar. We have here also a confirmation of our principles regarding action. Observe that if we read on without deep thought and feeling, without pausing and so realizing his emotion as to cause action, there will be little change in the voice.

> Hark! how 'mid their revelry
> They raise the battle-cry! The clang of arms,
> And war, and victory for me! Away
> With idle dreams! Why, what to me are women?
> Yet she — ah! she is not like those at home,
> Clad in their shaggy skins, sunburned, their bodies
> Loaded with clumsy ornaments, happy in bondage,
> With base caresses humbly seeking favor
> Of their base lords.
>
> From "Ingomar" Sheridan Knowles.

At first Ingomar is extremely antagonistic. "What to me are women?" but with the next words he pauses in his rush from the scene. His face and the texture of his body change, his breathing and its rhythm, the tension of his muscles softens. He will have more breath, which will be more harmoniously inhaled and retained, and there will be complete change in body and voice, when he thinks of Parthenia.

Such extreme transitions call for long pauses and change in the very texture of the body with breathing, all parts responding to the conception of the imaginative situation, and the sympathetic identification, until the emotion diffuses itself through the body. The student should practice such a transition over and over until the amount of breath, the texture of the body, the key, tone color, and movement are all changed spontaneously, unitedly and sympathetically in response to the mind. He must not manipulate but allow body and voice to be modulated by his mind.

All expression is the revelation of life. The modulations of body or voice demand that we live before we give. Literature thus has been called an interpretation or "criticism" of life. If literature embodies human realization of life its vocal interpretation must manifest the presence of the ideas, thoughts, and experiences at the very moment in such a way as to reveal their essential characters through a living body and voice, naturally manifesting the essential spirit of that life as realized by an individual.

IV. MANIPULATION AND MODULATION.

An important but overlooked distinction can now be made clear, the difference between manipulation and modulation. By manipulation is meant the domination of the voice directly by will, causing it to change its pitch, perform certain actions, or produce certain qualities or effects independent of subconscious response to thinking and feeling. As examples of manipulation, notice those readers who use the falsetto or a throaty, nasal, or flat tone to express a character. Such mechanical uses to suggest a character come not from instinct but from mere local management of some muscle.

By modulation, on the other hand, is meant those deep changes which come spontaneously from thinking and feeling, changes directly responsive to imagination and sympathy or the action of sympathetic instinct. The process by which the voice is truly modulated is unconscious; one is more conscious of the cause than of the result. Modulations result not from imitation but from assimilation, and are the natural response to some mental and emotional action. Examples of modulation are inflexion, change of pitch, touch, movement, tone color, and texture. These are all natural modulations of the voice. They are found in every normal human being, but he is only partly conscious of them.

Even these are not all equally voluntary. Inflexion, change of pitch, pause, and touch are more conscious than tone color. True qualities or all secondary vibrations are spontaneous. Texture is the most involuntary of all.

Whether these principles are recognized or not, every one must feel that when a public reader represents a woman's voice on a high pitch and a man's on a low one, or the female character with a thin, hard tone and a masculine one with a throaty one, there is something in such rendering purely artificial, not truly expressive of character. Such manipulation is only appropriate in selections hardly worth the name of literature or which are dominated entirely by caricature and the most superficial farce or burlesque.

Only such natural, sympathetic unity of all the accessory vibrations constitutes genuine dramatic art. Mechanical manipulation of the external parts of the body, such as the feet, hands, or head, or even the bending of the back, belongs only to the realm of imitation, not to artistic modulation. Many speakers will smile at this and say it applies only to dramatic art and has no relation to speaking, but this is not true. Men with hard, constricted faces have hard voices, and the true resonant texture of the voice can scarcely be restored without attention to the action of the body.

Unfortunately, elocution has been considered a result of manipulations produced in accordance with certain rules. There has been little or no recognition of the spontaneous modulations of the voice, and too little realization of the normal actions of the human body to say nothing of the neglect of studying the dramatic instinct and the simplest mental actions.

In the development of delivery there is a wide difference between a method which uses mere manipulation and one which endeavors to develop a vocabulary of true expressive modulations. Manipulation is purely artificial, but modulation causes students to realize the meaning of pause, touch, change of pitch, tone color, texture, and movement, and by the stimulation of thinking, the awakening of imagination, the securing of an adequate impression, leads them to use naturally, even subconsciously and involuntarily, the harmony of these expressive modulations.

One of the fine applications of texture is shown in the change by a true public reader from one character to another. There is great temptation here for manipulation, but the reader must have sufficient imagination and sympathy to give him the power to assimilate one character directly and cause an almost immediate change in the texture of his muscles and voice. For example, note the dialogue between Dogberry and Verges and their prisoner, Boraccio. Note also the difference between Hamlet and Polonius or Hamlet and Osric.

XXVIII. ELASTICITY

Facility in the changing of pitch, whether between two tones or during the emission of a single sound, has been discussed under the term agility. Facility in varying the height of the sound wave has been considered under flexibility. We need also to understand and to develop facility in changing or modulating the shape of the sound waves. To this, for convenience, the term elasticity will be applied. Sometimes agility of voice is more developed. At other times flexibility. A voice may be flexible and have little range or have wide range and little flexibility. A voice may also have either of these and be very pleasant in quality and yet have no power to modulate or vary the secondary vibrations. Elasticity is the last and the rarest quality to be attained. All of them should not only be exercised separately but also, as far as possible, together. They have a sympathetic organic relationship to each other, and facility in one will tend to help facility in the others. Especially should elasticity name certain steps in which all of the essential characteristics are exercised in modulation.

These forms of facility are analogous to melody, rhythm and harmony in music. Rhythm is instinctive and vital; it reveals force and is one of the first elements to be appreciated. A salient vocal form or melody will be caught up at once and be repeated on the street, but we are less conscious of the sympathetic union of the vibrations.

The reason why many do not enjoy symphonies as compared with songs is that a song has a definite form by which it can be easily carried in the mind. A tune or melody, in proportion to its saliency, will be popular, but a symphony implies a certain simultaneous union of many sounds and instruments giving rise to a very complex, polyphonous combination of chords, overtones, and sympathetic vibrations. The shape of the sound wave coming to the ear is beyond all analysis.

Like the beating of a drum, pause and touch rouse to action. Like a popular melody, conversational form appeals to the intellect, but like a symphony coming from a great orchestra, the complex union of overtones, sympathetic vibrations and textures from the whole body, — all harmoniously produced by the imagination and diffusion of feeling blend in one harmonious union of expressive modulations.

Of all these modes, facility in changing the secondary vibrations is, of course, the most difficult as it is the most complex. It is less local, calls for a response from all parts of the body, and reveals the awakening of imagination, feeling, and the highest activities of being.

I. DEGREES OF REALIZATION.

As secondary vibrations express imagination and feeling we should be able to detect their presence.

Can you render these two extracts so genuinely as to reveal their differences in mental action and expression?

> Absence of occupation is not rest;
> A mind quite vacant is a mind distressed.
> Cowper.

> Speak to Him, thou, for He hears, and Spirit with Spirit can meet—
> Closer is He than breathing, and nearer than hands and feet.
> Alfred Tennyson.

If the two are given alike there is either lack of realization or the voice is unresponsive. Either the words are conveyed as such or ideas are abstractly realized and presented to the cold intellect. There is no feeling, no imagination, and no ideal modulation of the voice.

In all expression the primary aim must be to harmonize thought, emotion, and will. Thinking must cause feeling, and both must unite to make the voice responsive. Pay no attention to those who consider all feeling as unnecessary, if not degrading. Some persons who hold this view, are unfortunately, trying to teach literature. Genuine, deep thought always causes feeling. Emotion must be educated. Feeling is at the foundation of character and all successful attainment.

The practice of such contrasts awakens the necessity of pausing long and frequently to receive a more adequate impression, and the need of realizing intensely every change in thinking and feeling in order to produce right response in voice and body. Such practice must also quicken the sense of the possibilities of the voice and the naturalness of the sublimest vocal expression.

Exercise 99. Contrasts in Realization.

A most helpful means of developing elasticity is the expression by the voice of different planes or degrees of realization. The difference between the commonplace and the poetic plane is one of sublime realization. Many, however, are unable to realize the poetic plane of their own thought, or to express it by the voice. Such rendering is a wonderful help in developing appreciation of poetry. It tests adequately the degree or the plane of imagination and emotion, and when once these are realized the mind is stimulated to reveal them.

For a more advanced exercise take the same line or sentence and render it with several contrasted degrees of realization. Begin on the commonplace plane, recognizing words only as words, or facts as mere facts. Secondly, imagine the sense of the ideas as stirring one to life or giving animation. This will, of course, be more animal, more passional, but power is one of the first things to be felt on becoming conscious of the universe or of nature. The commonplace plane is negative, indifferent, but this vital plane is the first stage of awakening. Thirdly, the thought of the line may be looked upon as a profound mystery. Any idea can be regarded in this light. This is, of course, more subjective and human. It implies imagination and awakening to the sense of the mystery at the heart of nature. Fourthly, as the climax of these planes, the thought may be recognized in its most spiritual light, with a sense of awe or universal love and sympathy. Render the following line in accordance with all of these degrees or planes of realization.

> Oh, wind of the mountain, wind of the mountain, hear!"

We may realize only its meaning or relations to the poem from which it comes. This is the commonplace plane. We may, however, realize a tremendous storm raging through the mountain and feel the swaying of the trees and the quiver of the hills. When realization is genuine the body expands, we take breath and increase the volume of the voice.

In the third place we can change the situation, can hear the breeze blowing through the pines and are awed with a sense of the mystery. The voice now becomes soft and resonant. The tone passage must remain as open as before, we must have fully as much breath, and the whole body be equally expanded, yet by realizing an imaginative scene, the color and even the texture of the voice are changed and become extremely delicate, suggesting profound awe.

In the last place as we realize the harmony of wind and trees and sky and cloud, and our hearts are filled with a sense of the unity or intercommunion of all, we feel the union of all forces as the expressions of life and love. The tone will at once become rich with secondary vibrations, and while not vital or loud, as in the second degree of realization, yet it is far higher and expresses the deepest worship of the heart.

Another good illustration is found in the following clause from Coleridge's " Mont Blanc ":

" Rise, Oh ever rise! "

This may be given first as commonplace words. Then we may feel the force lifting this mountain, over 15,000 feet high, into the sky, and express crudely the sense of power. Again, we can contemplate it as a matter of profound mystery. Mont Blanc may seem to us a mighty vision. The imagination is kindled. The tone in this case becomes the finest possible. There will exist much reserve of breath, intensity of feeling, and other conditions, but the tone is on the extreme edge of the vocal bands. Such delicate tones express an exalted, imaginative, or mystic attitude of mind. Lastly the clause may be given with a sublime sense of awe.

So great are the differences between such renderings that they may be regarded as fundamental. I have even ventured to call the exercise elemental texture of the voice. There is little or no modulation of tone color in the commonplace expression, or in the second, for animal passion expresses itself in loudness. Poetic expression begins with the third. In the last we touch a higher plane of poetry, beauty, or sublimity. There is a sympathetic relation of all parts. The tone is the most pleasing because its overtones and sympathetic vibrations are accentuated. We cannot reach this highest plane without mastering the third step. We get this sympathetic vibration only through the delicate control of the edge of the vocal bands, just as the emotions of worship and awe come through imaginative realization of things on the plane of wonder.

Exercise 100. Elemental Textures of the Voice — I.

Such lines can be taken from a great variety of sources with distinct and decided differences. There should be no mingling of one impression with another, but each should be definitely realized by the imagination and decidedly expressed by the voice.

Roll, roll, ye waves, and thunder on the shore.

"Pour, pour, Niagara, thy mighty waters evermore!"

"What ought not to be done, do not even think of doing."
Epictetus.

In this connection it is important for all to realize the difference between prose and poetry. In prose the mind is looking more at objects as objects, at facts as facts, at words as words. Things are observed on the commonplace plane, but poetry implies not the external transcription of facts, but the soul's impression of them.

Art is found, whether in reading, in the use of pigment, or music, when the artist gets such an intense realization of facts and of objects that he interprets his experience of them.

It is for this reason that true expression implies poetry. The higher the realization the greater the poetry, and the more frequent must be the introduction of accessory voice vibrations. The voice is a wonderful test of the realization of imagination, feeling, or poetry. It is, however, often so constricted, that it does not respond to feeling. Vocal training develops its possibilities so that there will be a normal and sympathetic response of all the modulations of the voice to express degrees of realization of the thought.

All will be helped by contrasting passages from the plainest prose to highest poetry and sublimity. Sometimes a transition from one degree to another can be found in the same passage, even in what is supposed to be prose.

Exercise 101. Elemental Textures of the Voice — II.

Contrasts of lines or stanzas may be studied consistent with these four and in fact more planes and degrees of realization.

A blind man would know that one was a gentleman and the other a clown by the tones of their voices.

Not Known.

Ye hold me not! no, no, nor can;
This hour has made the boy a man.

"The Polish Boy" **Anna G. Stevenson.**

Oh! gentle rose, upon a thorn
All thy sweet loveliness was born.

Far along, from peak to peak, the rattling crags among, leaps the live thunder! not from one lone cloud, but every mountain now hath found a tongue; and Jura answers, through her misty shroud, back to the joyous Alps, who call to her aloud.

"Childe Harold" **Byron.**

Sleep, soldiers! still in honored rest your truth and valor wearing:
The bravest are the tenderest, — the loving are the daring.
"Song of the Camp" **Bayard Taylor.**

He who hath a thousand friends has not a friend to spare,
And he who has one enemy shall meet him everywhere.

There rolls the deep where grew the tree.
O Earth what changes hast thou seen!
There where the long street roars, hath been
The stillness of the central sea.
Alfred Tennyson.

"Law. . . her seat is the bosom of God, her voice the harmony of the world."

THE SKYLARK.

The April sky sags low and drear, the April winds blow cold, the April rains fall gray and sheer, and yearlings keep the fold. But the rook has built, and the song-bird's quire, and over the faded lea the lark soars glorying, gyre on gyre, and he is the bird for me! For he sings as if from his watchman's height he saw, this blighting day, the far vales break into colour and light from the banners and arms of May.

From "Hawthorn and Lavender" **W. E. Henley.**

Since secondary vibrations are complex, unconscious, and not commonly noticed, such contrasts are especially helpful. Here again it is important to work upon decided transitions.

It has been the endeavor to grade these as well as other primary exercises through the whole book. Still other transitions can be arranged, and it is possible to find such as will be adapted to every step.

Observe, in a genuine realization and adequate rendering of these four lines, what a sudden and extreme transition comes after the second line. How different is the expression of the intense admiration for the bride. The face beams with joy and pleasure, the body expands, and the voice becomes rich and tender in admiration of her beauty. Then suddenly from a wedding the scene turns to a funeral. What change in pitch, in control of breath; in face and body! What contrast in movement, in tone color, and in texture! Note too, that practically all these changes appear in the first word of the third line " There."

> From that chamber, clothed in white,
> The bride came forth on her wedding-night;
> There, in that silent room below,
> The dead lay in his shroud of snow.
>
> **From "The Old Clock on the Stairs"** **H. W. Longfellow.**

Work upon such a transition should continue until the reader can receive so intense an impression that adequate expression will follow. After each step and after each transition especially it should be applied to some complete though short poem or passage. An exercise such as a transition must be accentuated very decidedly and at times exaggerated. It is like a study by a painter. Hence, it should be applied, for in rendering some passage where several such transitions occur its true place will be seen and felt, and the necessity of such work will be more adequately realized.

XXIX. SECONDARY VIBRATIONS IN SONG

Expression in song is usually secured in two ways. First by modulation of pitch, that is, by melody; and secondly, by varying the degrees of force or the giving of passages loud or soft. It is surprising that the third and most expressive modulation of the voice should be so often overlooked in this exalted, ideal art.

This scripture passage, " He shall rise up at the voice of the bird," was given by a musical society with force and loudness. One who knew Hebrew asked the leader " Why did you render that passage so loud? " He said, " It refers to an old man who was awakened very early in the morning by the crowing of a cock." "The Hebrew word," replied the other, "here translated bird means the smallest of birds, hence the passage means that the old man is awakened by the slightest noise." From this it can be seen that both speakers implied that the chief modulation in song is loudness or softness. In this case it was more or less correct, but rarely do we find any reference to the emotional coloring which should be given in singing to express feeling.

Much crudeness in the art of song seems necessary on account of large choruses. It is not to be expected that there should be anything more than melody, or loud and soft, with large numbers. This may be true, but the neglect is almost as universal in solo singing and even in the dramatic singing of the opera. Even those who have fine tone color are hardly conscious of what it is; most regard it as an accident of birth, or an indirect result of teaching. It has hardly been scientifically explained, and few, if any exercises, have been adopted for its development.

Recently I saw a criticism of a great singer. She was called a coloratura artist. I hoped that here was a singer who had given attention to texture and tone color. But afterwards I found that it was only another name for the old quivers and trills. I then hunted up the dictionary and found "coloratura" defined as: "A general term for runs, trills, and other florid decorations for vocal music, in which the single syllables of the words are to be sung to two or more tones; also called coloring."

The absence of tone color in nearly all the singing of our time is due to the fact that the complete phenomena of voice modulation are not grasped by teachers. Is it possible that the art of singing, great as have been the results, is as yet incomplete? I sincerely believe that more adequate scientific explanation, coupled with higher artistic ideals and use of the knowledge in an artistic way, will in time carry the art to higher heights than ever before attained. What may singers not accomplish with thoroughly trained imaginations and disciplined feeling, with bodies made more normal and responsive by more harmonic and psychic training, when they are able to control the sympathetic vibrations from the whole body in response to feeling?

Many illustrious teachers of singing say: "The singer must not try to act." This astounding direction was given by a brother of Delsarte. Delsarte is, so far as we know, the first who taught that expressive modulations of voice in singing are due to pantomimic action. The general opinion of those who heard him sing, at least of those whom I have interviewed, was that his gestures were too extreme. Possibly he may have exaggerated action on account of his discovery of the relation of action to song, but in principle he certainly was right, and the world must yet recognize his discovery.

I am sure that the student of singing, who will follow carefully the steps indicated in this book for the development of the voice, or the teacher who will study this and the companion volumes on training and expression, and will observe his art from a wider point of view, will realize higher possibilities. When the action is genuine, it not only is no hindrance but is a positive condition to any right use of the voice.

Action in singing is of course different from that of speaking. As speech is more discursive and expresses successive ideas while song expresses the underlying emotional responses and sustained situations, similarly speech has more gesture, song more attitude. Even in speech, however, the attitude must always transcend and justify the gesture. The former is more conditional, the latter more emotional. The attitude is more permanent, the gesture more transitory.

Hardly any close observer will fail to recognize that the singing of our time is as a rule too mechanical and conventional. A Melba has flexibility and pure tone, but does she move us? Many prominent singers express little feeling. The various trills and extravagant variations upon which they pride themselves are artificial.

In every case in proportion to lack of feeling, to the fact that singing is mechanical, we shall find inability to change the overtones under the dominion of feeling. The body is stiff, and there is no variation in the texture of the muscles. The voice is monotonous because of lack of responsiveness, a want, it may be, of imagination and feeling, but certainly lack of expression.

Singers do not receive any training of the body or any study of the fundamentals of expression in the natural languages. It is true, to sing is natural, according to Herbert Spencer "it is emotionalized speech." There is certainly more kinship between speech and song than many have recognized. The simple expression and modulation, the use of the voice in speech, some of the best teachers of singing contend, reveal more quickly certain abnormal conditions of voice, and they are no doubt right, but why should not this method of observing speech be carried farther? Why should there not be a broader study of expression, including both speech and song? The mechanical and exhibitional variation of pitch without much change in overtones heard so universally in operas and concerts is certainly discouraging to one who is earnestly studying and hoping for higher development of the art of song.

What singer, what teacher of singing, will undertake a fuller study of the overtones, will investigate the variation of the texture of the muscles of the body by feeling and the effect of these upon tone; who will find the real laws of expression of the whole body, who will observe the important pantomimic actions of the body and of the many emotional modulations of speech, and then apply these to the development of song? When shall we recognize as possible the power to modulate and indirectly to control secondary vibrations? When shall we feel that this is the climax of vocal art? Occasionally a Sembrich or a Nordica does express the deepest feeling in the right way, but so ignorant are we that we imagine it is only instinctive, only something personal and peculiar to the individual. Rarely do we think of such exalted art as the result not only of genius but of long years of thorough and patient training.

Though a student in singing with some of the greatest masters I have never taught it or practiced it as an art, and hence lack that experience that would enable me to speak with authority. Still, from what observation and experience I have had, I feel sure that the same steps here advocated for tone color and texture in speaking which are the result of over thirty years of investigation and practical study are applicable to singing. I urge students to experiment with themselves, to take some simple song, especially of love, and to give the melody and degrees of softness, but also to feel the theme so deeply and abandon the body to it so completely that the texture of the muscles becomes softened by diffusion of emotion and the tone directly responsive to imagination and feeling. Of course, everyone will be apt to fail at first. The body is usually stiff and out of poise, but let the student develop its oneness and unity, its harmonious response to feeling and after persevering practice surprising results are sure to follow.

VIII

MOULDING TONE INTO WORDS

XXX. THE NATURE OF SPEECH

As breath is put into vibration by the vocal bands to form tone, so tone is the material by which the organs of articulation in the mouth mould the tone into words. The marvelous phenomena of speech result chiefly from modulation of the secondary or accessory vibrations.

Development of right tone production in a natural order should precede that of articulation. When tone is properly produced there is not only the proper material present but in developing tone conditions we are also preparing the organs and establishing primary conditions for speech. There is no antagonism between tone production and articulation. By the first co-ordination which frees the tone passage we secure openness of the mouth, and that relaxation of the tongue and jaw which will cause openness of the vowels. We also gain freedom for the action of the tongue and other organs in articulation. An exercise in articulation that interferes with tone production is bad, on the one hand; and on the other, an exercise in production of tone which does not prepare for speech and develop it will pervert tone itself. The removal of constriction from the tone passage will necessarily aid in removing it from vowels and consonants. Establishing proper conditions of tone is necessarily developing those of speech.

I. ORGANS OF SPEECH.

The parts that articulate tone into speech, as distinguished from those producing the tone itself, are all situated in the mouth.

The primary organ is the tongue, which is directly or indirectly concerned in every element of speech. Except the few vowels which are modified by the lips, and still fewer in some languages modified by the action of the soft palate; the tongue is almost the only active instrument in producing the vowels.

Even in consonants the action of the tongue is the leading agent. For example, we may think that the letter " w " is entirely due to action of the lips, but a comparison of the German with the English " w " brings out the fact that in the former sound the tongue is relaxed and passive, while in the latter the back of the tongue is high.

In addition to the tongue, which may serve both as a passive and an active agent in speech, we have the lips, the upper teeth, and the hard palate, which act only in passive opposition to the tongue. The soft palate also acts in producing a few elements. But all these parts act in conjunction with the tongue.

We find difficulty in studying the sounds of the English language on account of the fact that we have double the number of sounds to that of letters. There are forty-five, and possibly more, distinct elements in English speech. For these we have twenty-six letters, of which " c " is either " s " or " k," and stands for no distinct sound. " H " has no fixed position for the following vowel. The Greeks, accordingly, called the two ways of indicating a vowel rough and smooth breathing. " J " is a compound, and stands for two other sounds, " d " and " zh," the opposite vocal combination to our " ch," which is " t " and " sh." " Q " is only " k " and a breath "w." "X" is either "ks" or "gz." How many letters for distinct sounds are left? Of the whole alphabet, we have left barely twenty-one signs, which must stand for more than double this number of elemental sounds, to say nothing of glides or compounds.

The result is necessarily a complex and meaningless doubling of elements. "Sh" has no kinship either to "h" or "s." It is a distinct element, and in a perfect language would have a distinct letter to stand for it. It is only similar to "s" in being a sybilant. Again, the sound represented by the letter "z" in "pleasure" is not a "z" at all. It has been called "zh," and is as primary a sound as "z" itself. It is the voice element corresponding to "sh."

The greatest difficulty is found with the vowels. Some dictionaries enumerate no less than six sounds of "a."

Not only have we over twice as many sounds as characters, but in our language the same sign is made at times to stand for wholly distinct sounds. For example, "a" stands for short "o" as in "what," while "o," as in "nor," is made to stand for broad "a."

It is astonishing that we accept the imperfections of the alphabet and of language, and that little effort is made either to reform the language or to arrange one that will be more convenient for the communion of man with man. Esperanto and some of the other newly invented and supposedly ideal languages, take original roots and adopt a simple, uniform method of inflecting after a root, showing whether it is a noun, verb, or an adjective, and so on. But no ideal language can be invented without a larger number of letters or symbols or better methods of representing sounds.

A scientific and adequate system for recording the elementary sounds has been invented or discovered by Professor Alexander Melville Bell. The great service of this invention in teaching deaf mutes to read and speak has been recognized by some, but so indifferent are most persons that its broader helpfulness in the study of foreign languages, and in recognizing and recording the elements in our own, has hardly been appreciated. Visible speech consists of simple, but adequate signs, recording the objective phenomena of all languages. Professor Bell's letters or characters have no resemblance to any others, but in every case the curves or lines indicate the organs concerned.

One who wishes to master the sounds of any language, including his own, should study some of the works by Professor Bell explaining visible speech.[1] He will there ascertain the nature of the different sounds, and be able to master more easily the most difficult of spoken languages.

Professor Bell's division of the vowels is the best yet suggested. He divides the chief vowels of all languages into three classes, which he names " front of the tongue vowels," " middle of the tongue vowels," and " back of the tongue vowels." He does not mean that the whole tongue or the whole mouth is not concerned in the production of these vowels, but simply that the different vowels are primarily distinguished by action at the particular part of the tongue named, the rest of the tongue acting passively in the general shaping of the passage. The definite action of a part and the passive opening of the rest are necessary to the production of any particular vowel.

II. SPEECH ELEMENTS AND THEIR SYMBOLS.

The elements of speech have been divided usually into vowels and consonants; but this division is not complete. Professor Bell, for example, notes another class of elements in everyday speech called " glides."

What are the differences between these elements?

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[1] Published by the Volta Bureau, Thirty-fifth St., Washington, D. C.

The vowels are the most important. The word vowel comes from the same root as "voice." Voice always reveals itself primarily in vowels. A human being can make scarcely any vocal sound, or cry, which may not be a vowel sound.

In the vowel the tone passage should be as open as possible. Changes from vowel to vowel are due simply to the shaping of the tone passage by the action of the tongue, and sometimes, in addition to this, by the action of the lips, or even the soft palate.

Dr. Graham Bell distinguishes at least two chambers in the mouth, and illustrates the subject in a simple way. Holding the tongue and lips in position for the vowel "ē," he places a pencil in such a way as to indicate, when it is thumped by his fingers, the pitch of the front chamber which is high. He next places the pencil on the throat in such a way as to communicate with the back chamber. A stroke on the pencil shows a low pitch. He then changes the vowel to "o͞o," and shows that the pitches of the two chambers are reversed, the front having a lower pitch and the back a higher.

This experiment shows that there is a small chamber in front in the vowel "ē," and a large one in the back, but the reverse in "o͞o." In general it has been proved that vowels are produced by the shape of the tone passage, due to degrees of elevation or widening of various parts of the tongue.

A consonant, as indicated by its etymology, "sounding with," is something that is always joined to a vowel. It cannot furnish a complete syllable. The vowel is open and syllabic; the consonant is the sudden juxtaposition, more or less close, at the same point of the tone passage, and an immediate return from this into a vowel position, or into a passive condition of the organs.

The points at which juxtaposition of the organs may occur in the production of consonants are the approach and separation of the lips, the lower lip against the upper teeth, the tip of the tongue against the upper teeth or the hard palate, the middle of the tongue and the back of the tongue against the palate, the soft palate against the back of the tongue. Some languages have other elements, but these are found in English.

A consonant demands definite and sudden activity followed by immediate recoil or passivity of some organ or its parts. There is no antagonism between a consonant and a vowel in good speech; but in faulty speech unnecessary labor and constriction cause antagonism. While the actions are in direct opposition and seemingly imply antagonism, yet definite consonant action is a help and not a hindrance to right vowel action. For example, a decided action at the tip of the tongue in "d" is followed by a sudden recoil into any vowel position. Though the front of the tongue acts in "e" and the tip in "d," yet the syllable "de" can be pronounced as easily as "e" alone. A consonant properly produced never interferes with nor obstructs a vowel.

The difference between a vowel and a consonant may be illustrated by those elements in which the positions are close. For example, in "woo," the "oo" and the "w" have the same organs, the lips round and the back of the tongue high with the front of the tongue relaxed; but in the vowel all is open for the free passage of tone, while in the "w" there is such a juxtaposition of the lips as to cause a buzzing sound or obstructed vibration. In passing from "w" to "oo," the lips merely open and the buzzing vibration gives place to a perfectly free emission of sound waves.

In the same way in "ye" the tongue is elevated in "y" at the centre, and opens suddenly from the roof of the mouth. In "ē" the tongue is in the same position except that there is greater openness at the top.

What is meant by a "glide?" Take our so-called long "a," as in "fate." A Scotchman speaks this vowel differently from an Englishman. They may start the vowel in exactly the same position, but the Scotchman's tongue does not change, while with the Englishman there is a change and the tongue glides toward the "y" position. Some will have more glide than others, but in correct English the glide is an essential part of this vowel. A glide toward "w" is also found in "ō."

Between a vowel and the letter "r" in English there is a glide, in fact, when we have "r" at the end of a syllable, the tongue passes from the vowel position in the direction of the percussive "r," but hardly comes in contact with the roof of the mouth. In correct English final "r" is now always a glide.

The glides are of great importance in studying dialect, and in correcting dialectic peculiarities and faults. Every language has certain glides marking the native speaker, which are the last to be mastered by the foreigner.

III. VOWELS.

That a vowel is produced by the shape of the mouth can easily be illustrated to the satisfaction of everyone by an experiment.

Take a common jewsharp, and sound it, while holding the tongue and lips in different vowel positions, and note the effect.

Take the vowel "e" as in "eel," and notice that the front of the tongue is as high as it can be raised and at the same time give openness to the vowel. Then passing from this long "ē" to "ā" in "ale," it will be noticed that the front of the tongue is lower in so-called long "ā;" it is still lower down at "e" as in "ell."

Accordingly, we have a class of vowels due to the elevation or lowering of the front of the tongue. Professor Bell finds an additional action; a widening of the tongue at certain positions. Next to " e " as in " eel " is " i " as in " ill," in which there is not only a lowering but a widening of the front of the tongue; and next is long " a," as in " ale," and a widening at the point gives us " a " as in " care," a sound in English always found before " r." A still further lowering of the tongue produces the so-called " short e " as in " ell," and a widening with a lowering of the tongue, as low as it can be placed, with the front of the tongue action, gives us " short a " as in " hat " or " shall."

In studying vowels made with the back of the tongue, we find a tendency in all languages to simultaneous modification of the vowel chambers by the lips. As we lift the back of the tongue high, we bring the lips into a rounded position and produce our so-called long " o͞o " as in " pool." The widening of the back of the tongue brings us to " short oo," as in " foot " or " pull."

A still greater lowering of the tongue and the natural increase of the openness at the lips, brings us to our " long o " as in " pole," and a widening of this, as heard in some speakers, though rarely used at the present time as a sound, comes before the letter " r " as in the word " sword." Further lowering of the back of the tongue, and widening of the lip action gives us " broad a," as in " all " or "Paul." A lowering of the back of the tongue to the lowest possible position, and widening with a small rounding at the lips, gives us " short o " as in " poll," " doll," or " not."

While in English the only vowels that have any modification by the lips are these " back of the tongue " vowels, this is not true in other languages. The French " long u," for example, is our " long e," with the lips rounded. Professor Bell considered the German " u " equivalent to our " short i," with the lips rounded.

These actions of the organs of speech should receive careful attention in studying a foreign language. Local observation of the production of an element is a scientific method in mastering the most difficult of languages.

The "middle of the tongue" vowels are fewer in nearly all languages, and naturally are the least noticed. The most prominent one in English is the sound in "the" when followed by a word beginning with a consonant. The true nature of this sound is not even recognized by the dictionaries. Some authorities make it "short i," others "short u," but it is certainly neither. It is a "middle of the tongue vowel, and practically the same as the "e" of *le* in *le cheval* in French. Professor Bell thought that in the French sound the tongue was a little higher than in the English.

Another important "middle of the tongue" vowel is "a" as in "ask." We hear it in the second "a" in the word "fatal." An unaccented short "a" is nearly always this sound. Notice, for example, the different sounds of "a" in the two "thats" in the following sentence: "I tell you that that is true." The second "a" has the sound of "short a," but the first "a" has the decided "middle of the tongue" action. This shows that the dictionary sounds of words are not always the sound of speech. The best speakers change the vowel sounds to a certain extent. For example, "Two men went up into the Temple to pray." According to the dictionary we have here three words all with "long oo." But anyone will perceive, if he watches carefully, that no good speaker ever utters the three words in this way. The first has "long oo," but the others "short oo."

Another important "middle of the tongue" vowel is "e" as in the word "mercy." This is a specially imperfect vowel in America. Dr. Graham Bell used to say that it is the laziest vowel in the language, demanding only a passive tongue through its whole breath, and made by every animal except the American biped.

It is extremely difficult at times to develop correct action of this vowel. It can be best secured by giving "a," and passing the tongue to "short a," making a continuous sound. The tongue must necessarily pass through the right position for this vowel. Some insist that the difference between "short u" and this vowel should be indicated in the two words "fur" and "fir." The word "church," which, of course, has this vowel, is considered by some as a shibboleth or test of a cultivated man.

In English we have two "back of the tongue" vowels, unmodified by the lips, — short "u" as in "dull," and the vowel sound in "palm," called Italian "a," possibly because so common in that language. It is the first letter in all Indo-European languages, perhaps because the mouth is most open and normal in producing it, and hence is called the "mother vowel." It is imperfectly produced in America. In American speech the back of the tongue in sounding the vowel is often high or constricted, and some have gone so far as to call it our most imperfect vowel.

Removal of constriction from the position of this vowel nearly always results from a mastery of the steps so far undertaken. The reason that the back of the tongue is high is because of constriction of the pharynx and a lack of true co-ordination between the activity of breathing and passivity or openness of the tone passage.

This vowel "ä" is the most natural and common in all exclamations, especially in those of pleasure or laughter. It is the vowel used by nearly all great vocal trainers, because it implies the fullest relaxation and openness of the tone passage. The faults in this vowel are due to constrictions of the pharynx. One of the first signs in voice improvement or mastery of co-ordination of the passivity of the throat with activity in the middle of the body, is the greater openness and freedom of this vowel.

IV. CONSONANTS.

The peculiar action of consonants implies definite juxtaposition of two organs, as, for example, the lips in " p." Sometimes the organs do not close the passage completely, as in " w," or again, the passage is divided, as in the letter " l," where the voice escapes over the sides of the tongue.

A definite analysis of all the possible consonants in the language will be found in Professor Bell's books. All that need be noted here is an examination of the simplest actions of the organs.

Various classifications of consonants have been given; such as labials, dentals, and linguals; but these are hardly adequate. In the dentals, for example, the teeth are passive; they call for the action of another and far more important organ.

The only division of great consequence is that between voice and breath consonants. " P," for example, is a breath and " b " a voice consonant. In breath consonants the pharynx seems to be more concerned, and in voice consonants action of the vocal bands is added. We can indicate the difference in a whisper, but even if this is done between the breath and the voice consonant there is a vocal band action in a whisper in giving " b " that is absent in giving " p."

The student should analyze his own speech and that of others, and be able to give all the consonants correctly. Phonetic spelling is important. Most persons are unable to recognize the simple sounds. So little attention is given to speech that even educated men of our times do not know the sounds of their language.

Among the great needs of education are vocal exercises. They have been shown to be a most important means of motor training. They should relate to a definite study of elemental sounds. The various schemes for the reform of spelling appear ludicrous when we notice the mistakes made in sound analysis. From time to time a periodical has been issued printed phonetically but the principal value of this has been unintentional on the part of the reformers. It has shown how far we are from understanding the nature and number of elemental sounds of our language.

What are some of the sounds forgotten in teaching language? What is the sound represented by "h" in "hue?" It is not "h"; otherwise the word would be "hoo." It is a breath "y." We say that the German consonant in the word "ich" is not found in English. But the fact is that it is not found in English at the end of a word, though the same sound is in the word "hue." In English we have it at the beginning of a word, and in German at the end of a word. We have the same sound in the word "tune," though it is quite short on account of its coming between "t" and a vowel.

Again, what is the consonant sound in "why?" Some of our "unabridged" dictionaries discuss whether the "h" comes before the "w" or after it. But there is no "h" in "why." "Wh" is only a breath "w." The difference between "ten" and "den" is not in the position of the organs. "T" is a breath consonant and "d" a voice consonant, and the same is true of "wh" and "w" in "whine" and "wine." A breath consonant when unobstructed is prominent, and the prominence of the breath in a continuous letter makes us think of "h." The "h" often is only a sign of breath.

The first letters in the words "thy" and "thigh" have no kinship whatever either to "h" or to "t." They form definite elements for which we have no symbols in English. The two sounds are distinct as "t" and "d" or "s" and "z." One is a breath consonant and the other the corresponding voice consonant.

"L" has been regarded by many as having no coordinate breath consonant, but there is, of course, a difference between the "l" in "lay" and that in "play" or in "blow" and "flow," or in "glow" and "slow." According to Professor Ellis "l," after a breath consonant, changes halfway through from a breath consonant to a voice.

XXXI. DEVELOPMENT OF ARTICULATION

A valuable aid to the student in recognizing the sounds of his own language, is the spelling phonetically of some simple sentence, making sure always to use the same sign for the same sound. For example, "o" in "not" should always be given by this sign and not "a" in "what" with a dot under it.

It is sometimes amusing to ask college graduates to record by simple symbols the way they themselves pronounce some familiar words. Recognition of sounds by the ear and producing them by the voice should begin early in life; otherwise, it is difficult to develop voice or speech.

There are few subjects so misunderstood as the development of articulation. The exercises commonly adopted for this purpose cause constriction and hardness. Both tone and speech are often injured on account of mistakes regarding the nature of speech.

The chief mistake has been made in regard to consonants. The work of articulation, even with little children, has been mainly directed, not to securing good tone as material of speech, not to development of free open vowels, but to getting vigorous consonants. The result has been labored, constricted speech with a narrowing and squeezing of the vowels.

The whole syllable or word, with its consonants and vowels, starts as one with the breath from the diaphragm, and as tone from the larynx. The elements are shaped, separated, or discriminated only in the mouth.

The first requisite for good speech must accordingly be rich and full material. While the organs must act definitely this action must not be labored, and it will always be more nearly adequate when there are full sound waves or primary vibrations and many overtones and secondary vibrations from the chest and body which can receive special sympathetic variations from the organs of speech.

As all change in vowels is simply the result of modifications of the secondary vibrations, richness of these is first necessary. In a sense they are basic since they furnish material for articulation.

Work on the organs of speech to obtain consonant action without voice may introduce serious faults. Such work narrows the tone passage and is one cause of the hardness and constriction of the American voice. No articulating action must ever interfere with the primary conditions of tone or lessen the number and harmony of secondary vibrations.

From these facts we now see that not only must vocal training precede development of articulation, but that vowels must be developed before consonants and must underlie the whole word. Even that which begins with a breath consonant, as well as the most breathy of consonants, a sibilant, demands the immediate support of a vowel or it will become a mere disagreeable hiss. A consonant must always be as definite as possible that the whole word may be felt with the vowel. The vowel is the soul of the word, the consonant but a garment.

I discovered this principle in teaching stammerers. The stammerer endeavors to make his consonants stand alone, and one of the steps, as will be explained more fully in a book on "Stammering," requires the development of the power to speak " out of the vowel " to float the consonants, so to speak, on a stream of vowel sound.

This particular fault, however, is not distinctively characteristic of stammering. In most educated men there is an exaggeration of consonants, and the vowel is frequently weak and indefinite. The sound lacks richness and fullness; the roundness and resonance which belong to ideal speech being often displaced by mere consonant constriction.

The greatest need with most persons is not consonant but vowel action. There is little use in working upon consonants until the vowels are made open and free. Then that peculiar harmony and balance of consonant and vowel, which is the fundamental characteristic of true speech, will naturally follow.

The true improvement of vowel action requires first of all enlargement of the vowel chambers. Hence, the preliminary step in improving the vowels must be associated with co-ordination or the fundamental principle of tone production. Correctness of position will be best secured by work in enlargement instead of by manipulation. The whole mouth and tone passage must be opened. It will then be discovered that the more free and open the tone passage the more likely will the organs be to assume correct positions and perform definite elemental actions.

Truly good speech must be as free and relaxed as possible, and to secure openness requires first of all relaxation and mastery of the fundamental principle of co-ordination. This openness is not only needed by the vowel but by the consonants. Since a consonant requires the contact of the organs, followed by an immediate separation, the wider the recoil the better will be the consonant. This recoil is as much an essential part of the consonant as its right action. Even its definite action or position must be as momentary as possible and recoil into the following vowel or into passivity.

Good speech is in the mouth, not in the throat. The throat is the tone passage, and the centre of the secondary vibrations for tone, but the modulation of tone into speech calls for the free action of the tongue and this in turn requires an open mouth chamber. The tongue must have room also to come into contact with the hard palate and upper teeth and to recoil into the vowel positions. Openness of the tone passage is accordingly the first step for articulation. Before it can be improved the heavy muscles of the pharynx and even of the jaw must be relaxed by co-ordination with breathing.

Nasality, throatiness, flatness, hardness, and huskiness must be corrected by work upon tone production, before the actual work of improving speech can be begun. We can easily see that the qualities of good speech are the same as those of good tone, openness, freedom from any interference, or constriction, and richness in vibration. When the tone begins to improve, the principle and the exercise should at once be applied to opening and enlarging the vowels.

Exercise 102. Agility of Jaw and Tongue.

Following the mastery of the primary conditions, exercises should now be introduced when necessary for agility of the jaw, such as "fa," "la," or "alpha," "beta," "gamma," "delta," given with a quick repetition and with the vowels as large and open as possible. This secures flexibility of the jaw or rather develops its power to drop out of the way of the tongue.

Another exercise is "va, tha." In "va" the lower lip has to rise against the upper teeth; in "tha" the tip of the tongue. Keep as open as possible the vowel and the whole mouth chamber by developing the jaw and tongue as a part of the primary co-ordination. Develop agility of the organs in passing to their most open or relaxed condition.

Holding the jaw relaxed and the tone passage as open as possible, change to "la," "tha," and other combinations, giving these syllables rhythmically with no action other than that of the tongue. Such practice requires study of the action of the organs in producing the different elements.

Many faults of speech can easily be remedied by a few moments' observation of the production of elements. A little child may say "free" for "three," but if you tell him to put out his tongue and say "three" he is likely to get the correct position of the organs. I have known a single correction to be sufficient; but constantly blaming a child for a fault without showing him the way to correct it will make it worse.

Good speech should be exact. Each element should have its distinct character unmixed with that of any other element.

Parts should move only when necessary. Every element is produced by a simple delicate action, for example, "th" in "thy" requires the tip of the tongue against the upper teeth, but no one can place the thumb and finger under the jaw between the larynx and the chin, in a throaty voice, without finding that the whole tongue has been brought into activity, if not the muscles in the pharynx. The swallowing muscles are active. This not only makes the tone throaty, but this element thick and labored, for the local use of the tip, or any part of the tongue, will not be free.

In good speech, therefore, every part must discharge its own function without interfering with adjacent parts. The muscles employed in swallowing are never used in tone production or in speech.

An important step in developing the organs of speech is the ability to separate the action of the tongue from the jaw.

Exercise 103. Openness of Vowel Chambers.

Relax the jaw and tongue as much as possible, and give the vowel "ah." Then lift the tongue to the position for "e," being sure that only the tongue rises, and that the position is not made by action of the jaw. Alternate these quickly. There must be no constriction. Patience will be required to master the exercise, the jaw being kept relaxed during the emission of the vowel. These two vowels are extreme. In "ah" the tongue is lowest and in "ē" it is highest or rather the front part. The tongue is called upon, therefore, to go from one extreme to another, and on account of this leap its independent action is developed by the practice and this will gradually free it from the jaw and develop openness or enlargement of the vowel chambers.

Freedom of the tongue can best be tested by its power to give such vowel positions independent of the jaw action. Later, the exercise may be modified by placing some other vowel between the "e" and "ah," such as long "ā" giving it a dactyllic rhythm. "L" or some consonant may also be placed before these vowels. Similar exercises if necessary can be arranged for other vowels and consonants.

A consonant must be definite and not labored. The action must be at one instant and by one definite part, the other parts being kept relaxed and out of the way. Each agent must act in accordance with the principle that each part must act without interfering with its neighbors. Good speech must be correct; that is, each element must be made correctly. The right organ must act, and in the right way.

Good speech demands the union of vowel and consonant; it must be "out of the vowel." The vowel, not the consonant, is the centre of speech. A word should be filled with the vowel sound and the accented vowel should bring all the other syllables rhythmically around it.

In the moulding of tone into speech, we find that the highest quality is openness. No matter what the consonant action, no matter what organs are brought into juxtaposition, they must come together so quickly and return so decidedly that there is no obstruction whatever to the free openness of the vibration. The utterance of a word is continuous. The word starts with the breath then it becomes tone and last is moulded into word or phrase as it passes through the mouth. A syllable is one impulse of the voice. It has one definite vowel modulation with its moulding consonants, but the whole word, or phrase, has one impulse from the lungs and this unity of impulse is of great moment. Words and phrases in a pleasing speaker have rhythmic unity. The one impulse supports the whole phrase, and all parts are easily modulated.

Exercise 104. Initiation of Tone — VI.

Practice "va," "la," "tha," "da," and other syllables as starts. Give the initial consonants fully, quickly and definitely, with the vowel as open as possible.

Certain phases of initiation of tone must apply tone conditions to speech. These should be applied at the time or reviewed now. Unless the open, free tone is immediately used or carried forward into the openness of the articulation, habitual constrictions in the mouth and narrow vowels will defeat co-ordination between the diaphragm and pharynx. Open speech and open tone are necessarily secured together. The co-ordination between diaphragm and pharynx opens the mouth also and must be the very first step in improving speech. Sometimes the speech begins to open as a result of the openness of tone; when it does not, work in articulation must begin earlier.

These or similar exercises should be introduced in connection with the initial exercises for respiratory and pharyngeal co-ordination. The mouth is a part of the tone passage, and a large full open vowel is one of the most important exercises.

Vowels should also be practiced especially inflexional initiations with final consonants. Be sure that the tongue returns to a reposeful relaxed position with the tip against the lower teeth. The immediate recoil of the organs is a most important point in developing right consonant action. This is especially true of the tongue. Repose of the tongue is most difficult to secure in vowel production and its recoil into passivity after consonant action.

Notice that all but one of the vowels in the following words are short; but observe that these can be open and free. Allow no vowel to become constricted, narrow, or limited in quantity.

> "Joy is not in things, it is in us."
> Charles Wagner.

Render passages full of life, and not only accentuate preparatory conditions of voice but have the vowels as large and open as possible. Be sure that the vibrations of the voice in the vowel fill the whole word.

THE RHODORA.

In May, when sea-winds pierced our solitudes,
I found the fresh Rhodora in the woods,
Spreading its leafless blooms in a damp nook,
To please the desert and the sluggish brook.
The purple petals fallen in the pool
Made the black water with their beauty gay;
Here might the red-bird come his plumes to cool,
And court the flower that cheapens his array.
Rhodora! if the sages ask thee why
This charm is wasted on the earth and sky,

Tell them, dear, that, if eyes were made for seeing,
Then beauty is its own excuse for being;
Why thou wert there, O rival of the rose!
I never thought to ask; I never knew;
But in my simple ignorance suppose
The self-same power that brought me here brought you.
Emerson.

XXXII. VOCAL QUANTITY AND PRONUNCIATION

Enunciation stands for proper moulding of sounds into words by right action of the proper organs. Articulation applies more definitely to consonants, though the word is also used in reference to vowels and correct production of all elements. The word "pronunciation" implies accent and vocal quantity and accordingly has the most direct reference to the common utterance of words as wholes.

Accent is important, as it centralizes the syllables into words. As a part of rhythm it is necessarily associated with the proper touch in speech. The difference between accentuation and touch is that the first refers to the relation of syllables to the word, and the other to the words of a phrase with reference to thought. Accentuation is functional, and determined by custom, but touch is a natural expression of thought. It shows the direct affirmation of the concentration of the mind in speaking successive phrases.

Right accent must be acquired by a study of the dictionary, observation of the best speakers, and by developing the sense of rhythm. The process of giving right accent can be greatly helped by training in rhythmic agility.

Vocal quantity, though often forgotten, is of prime importance in pronunciation. Bad quantity causes bad articulation. One should take a list of words such as that published by Gardner in his "Music of Nature," and practice them in different pitches, observing the musical quantity of the syllables and giving the proper amount of time to each syllable.

Poor speech is universally characterized by irregularity in rhythmic vocal quantity, while one of the most charming qualities of good speech is true relative quantity for every syllable.

Many persons think because of the infinite variety of quantity in English, that it has no such thing. While Greek and Latin verse is dependent upon the exact quantity of syllables they think that in English all depends not on this but upon accent.

While the syllables in English words have a great variety in length, still, among good speakers, a relative value and proportion is given to every syllable which gives great beauty and clearness of utterance to the language. When a syllable is given with wrong quantity, as in the pronunciation of a foreigner, or a careless speaker, the word may be misunderstood.

The basis of all true quantity is rhythm. In English it is vitally related to accent. There is a mysterious union or co-ordination between accent and quantity, not only in English verse, but in the simplest prose conversation. A proper use of the voice, a beautiful pronunciation, cannot be developed without attention to this important topic.

If students carefully observe the characteristics of sluggish and imperfect speech, they will detect the slurring of certain slight syllables. With a good speaker every syllable receives a certain relative quantity.

Every conceivable irregularity is found in quantity. One in particular may be noted, the loss of the dactyllic rhythm of some of the most beautiful words in the language. Such beautiful dactyls as "library," "family," "beautiful," "dutiful," "syllable," "musical," "quantity," in everyday speech are often turned into imperfect trochees or spondees, and thus we hear "lib'ry" for "library," "fam'ly" for "family," and so on.

The most pleasing words and phrases in the language contain one or more metric feet. Notice the two dactyls in "encyclopedia" and "Mesopotamia." How many long words, such as "impenetrability," "incomprehensibility," bring in a beautiful combination of metric feet! This instinct of rhythm or metre has no doubt had much to do with development of accent primary and secondary in the language. In English, as accent forms a part of the metric expression, we can feel the difference between its accent and that of languages in which metre is a matter of quantity.

Carelessness is especially seen in lack of quantity and lazy drifting without the agility of the rhythmic movement.

Dactyllic words are slighted more frequently, no doubt, because the dactyl implies greater animation and agility than iambics or trochees. The student should practice quantity and rhythm of the simplest prose syllables, words, and phrases. By comparison of quantity and rhythm he is prevented from developing artificiality and affectation, and will secure that union of correctness and ease which will develop the music of speech.

Arrange many words with regard to their metric value, and speak them with the right rhythmic pulsation and alternation of syllables, being especially careful to work upon those combinations most liable to neglect. Whenever the consciousness of the student is awakened to a specific fault, persevering practice should at once be adopted to correct any given defect.

An exercise often helpful in correcting faults is to repeat difficult words carefully. Sentences may be chosen with combinations especially adapted to the correction of some one fault. These can be prescribed by teachers. This is one of the oldest methods of developing articulation, and will always have importance and value. Such difficult sentences and combinations afford a good exercise, especially for sluggish organs. The following examples have been selected principally from the books of Professor Alexander Melville Bell, the ablest authority upon the subject of "articulation."

Studied deceit (not study). A sad dangler (not angler). A languid dame (not aim). His crime moved me (not cry). He will prate to anybody (not pray). A little leaven leaveneth the whole lump. Fill the sieve with thistles, then sift the thistles in the sieve.

A growing gleam glowing green. The bleak breeze blighted the bright broom blossoms. Flesh of freshly dried flying fish. Six thick thistle sticks. Two toads tried to trot to Tedbury. Give Grimes Jim's great gilt gig whip. Strong Stephen Stringer snared slickly six sickly silky snakes. She stood at the door of Mrs. Smith's fish sauce ship welcoming him in. Much water makes the meal-mill wheel work well. Eye her highness, how high she holds her old haughty head. The soup must be heated before he eat it. Chaste stars (not tars). Irish yews (not shoes). "Give the cat stale bread." "The cat's tail, mamma?" "Silence, child!"

To obtain the mastery of good pronunciation one should listen to the best speakers, and note the openness and richness of the vowels, the precision of the consonants, the quantity, the rhythmic pulsations, and the accent. One should acquire the habit of carefully consulting the dictionary regarding every word about which he has any doubt. When the student hears a word pronounced by someone in a different way from that to which he is accustomed, he should "look it up" at once. At the present time there are many books published on this subject. By going over these lists and carefully marking words pronounced incorrectly, with the help of a good dictionary, common mispronunciations may be avoided. However, there must be no slavish following of any one authority. For example, a teacher once criticised me severely for saying "bosom." To him it was "boosom" because Webster's Dictionary at that time commanded it. Later Webster changed this pronunciation and followed Worcester, but sanctioned both. The pronunciation which I had heard from my childhood was the best, according to Worcester. Whenever there is doubt or good authority for a pronunciation it is not necessary to make a change.

Good English means not only correct grammar and right choice of words, but also proper pronunciation.

XXXIII. FAULTS OF SPEECH

All faults of articulation are associated with constrictions. Bad speech is always labored. While occasionally there seems to be lack of activity, still, after closer examination, too much action, or that of the wrong parts, is usually found as the basis of the fault.

The chief difficulty is a failure to use precisely the right part. The heavy muscles act instead of the delicate ones. Instead of lifting the tip or front of the tongue, the whole jaw rises. Instead of rounding the lips, leaving the mouth chambers very large, the whole tone passage is narrowed. " T " is made not with the tip of the tongue but with the whole tongue. When the back of the tongue rises the tip does not remain relaxed against the lower teeth, but the whole tongue is curled up and the front drawn away from its normal bed. Bad articulation is practically always the result of a mixed condition of the organs, a lack of differentiation of part from part. Another cause closely connected with this is such a narrowing of the mouth chamber and tone passage that the tongue especially has no room to perform its elemental actions. It cannot come into opposition or recoil into passivity, both of which are necessary.

One point where right action in articulation is often overlooked is in the voice consonants. Notice the final " s " of speakers, which of course, is a " z " after a voice consonant or when alone. Usually it becomes " s " before the speaker has completed it.

In all continuous voice consonants, sometimes called " buzzes," such as " z," " zh," " l," or " th " (as in "thy"), the rest of the tone passage should be as open as in producing a vowel. Many of these buzzes are given by speakers as breath consonants because somewhat easier to produce. This is especially noticeable at the end of words.

Unless the tongue is relaxed it cannot promptly perform its elemental functions. Failure of the organs of speech to be active and passive in alternation is universally prevalent in bad speech. It is not activity that is usually lacking but passivity. At any rate, activity should be furnished only by the right part, and this cannot be the case without a preceding condition of relaxation in all the parts.

To correct any fault requires greater relaxation and openness of the parts, and then the introduction of precise action of the right part.

Hence, constriction or narrowness is the chief cause of the undeveloped or indefinite action often found in consonants. Increased labor cannot remedy the defect. Labored endeavor to do so constricts the vowels and makes the voice narrow or introduces some fault. All muscular actions in the production of a consonant must recoil into passivity. Correct action must be precise and decided and give way instantly to openness.

A squeezed condition, however, is often associated with vowels also. Few people can give a good open " ah" or "e." Instead of having every vowel open with a large vowel chamber many persons have hardly one vowel free from narrowness.

Another fault that may be named is sluggish action. Misuse or stiffness of the tongue often causes lack of precision, decision, and ease of response in the utterance of consonants as well as narrowness in the vowels.

These various faults are more or less associated. Whenever there is too narrow a passage for the organs to act there is likely to be sluggishness because of the use of unnecessary parts or muscles and the lack of openness or freedom. A man can easily point to the door with his finger, but to point with his foot requires labored action. He can easily make "t," "d," or "l," with the tip of his tongue, but when he uses the whole tongue he cannot have that delicacy of touch, that immediate return to vocal passivity characteristic of all good speech.

So one who keeps his teeth together while speaking makes it difficult for his tongue to get into the right positions or to recoil from them.

The psychology of faults of speech shows us the necessity of attention. Pause to think an idea completely and definitely with the words that belong to it, and give it with its phrases. Do not let the mind wander too far ahead, but acquire the power of concentration.

Nervous people are apt to think so much about themselves or about the opinion of others that they do not concentrate the mind so intensely as to receive a definite impression. Many faults of speech are simply due to confusion of attention. In every case the correction of faults demands development of clear thinking.

A psychological explanation has recently been made of verbal blunders, especially the faults in articulation called "verbal lapses." The accentuating of sentences and syllables has been explained by Professor Joseph Jastrow as the "intrusion of subconsciousness." The "complexity of speech," he writes, "requires the occupation with many processes at once, and some of these — the nicer, more delicate, less familiar ones, — will receive the major attention, while the routine factors engage but a minor degree of concern. Slight fluctuations in the condition of the speaker — physiological ones such as fatigue and for the most part, psychological ones, such as excitement, apprehension, embarrassment — will induce variations in the nicety of adjustment that are recognizable as typical slips of tongue or pen, and, still more significantly of the tongue-and-pen-guiding mechanism."

This I have found to be at the basis of a great many other faults. It has much to do with some forms of stammering and stuttering.

One proof of this confusion of attention appears in the fact that when a speaker is embarrassed he is much more likely to tangle up the complex successive actions concerned in speech. The stammerer will anticipate a difficulty, and in reading or in talking will see a word long before he speaks it. He is thus sure to trip when he comes upon it.

Of course, what has been said here will not explain all faults, but the peculiar leaping of certain words and the combining of two that are far apart is well called "the intrusion of the subconscious."

These principles especially apply to the early stages of stammering. Stuttering sometimes consists of a few spasmodic hesitations, but these if neglected degenerate into a fixed habit, and lead to the more serious impediment of convulsive stammering.

A simple remedy for the first stages includes quiet, confidence, concentration, thinking one idea at a time, taking time to pause, and speak phrase by phrase with great deliberation.

All faults are strangely similar from the psychological point of view as well as the physiological, though they may appear totally different in the act of speaking. Control of difficult combinations will help. Training the organs will render some assistance, but this is far more effective if united to definite command of attention and successive actions of the mind in thinking and speaking.

Two leading faults in speech as a whole can be found. The first of these is a squeezed condition of all the elements characterized by a certain nicety and struggle to be very precise. It is pedantic and exceedingly artificial.

The second general fault of speech as a whole is sluggishness. This is the opposite of the last. The organs of articulation do not come into opposition with sufficient precision and readiness. They drag into their places. The vowel positions are indefinite and the consonants are indistinct.

Perfect speech requires a balance between the consonant and the vowel action. The better the vowel the better the consonant, and the better the consonant the better the vowel. Their perfect balance results from the right action of the organs, the openness of the whole mouth chamber, tone passage, and the power of each part to definitely perform its elemental action.

Faults in specific elements are due to wrong positions of the organs, to omissions, insertions, or substitutions.

Of the first class, possibly the greatest number is found in uttering the letter "s." Sometimes the tongue is too far forward, making a kind of lisp; sometimes it is too far back. Sometimes the back of the tongue is curled and it is almost a whistle.

By speaking such a sentence as the following: "Sisyphus sold six pairs of scissors," the teacher may illustrate at least six distinct faults, — substitution of "th," tongue too far forward, too far back, curling of the tongue, substitution of "lh" or "ngh." When a teacher finds a defective "s" the tongue should be examined for tongue tie. In a small class of post graduates in Harvard University I once had one-fourth of the class cut for tongue tie. This is the most remarkable average, however, I ever found. The fact that I have frequently had men over forty years of age, with high collegiate honors, clipped for tongue tie, illustrates the neglect of the simplest elements in the science of speech. The teacher needs especial attention in the study of the position of the organs, and these have been fully explained in the books of Professor Alexander Melville Bell and also in Dr. Alexander Graham Bell's "Mechanism of Speech."

Many of the worst faults, seemingly, of speech, when thoroughly analyzed, are found to be simply the imperfect utterance of one element.

One of the most common defects of speech is omission. There are a great many words with unaccented syllables where the vowel is left out. "Curtain" is generally given as "curt'n," "Latin" as "Lat'n." There are more omissions among consonants than among vowels. Words which end in "kts," such as "acts," usually omit "t," and the "kts," becomes simply "s," and "acts" is degraded to "ax." In the word "sects" the "t" is often omitted. A story is told of a theological student at St. Andrews, who in opening the exercises with prayer made the astonishing request that all difference of "sex" might disappear.

Another fault is insertion. One common fault of this kind in some localities is the adding of an "r" to words ending in "a:" "idear" for "idea;" another is the insertion of the so-called "lazy u" between vowels and consonants, as between short "i" and "l" in "build," "f" for "th," "th" for "s," and many others.

The substitution of elements is another fault and one of the most frequent in vowels. Many words in English end in an unaccented syllable with "short e," such as words ending in "ent" "ed," "est," and "ess." "Short "i" is generally substituted for "short e." This is sometimes done even in monosyllables, using "yit" for "yet," "git" for "get," but much more often in unaccented syllables. Substitution of the "lazy u" for "short e" marks still more incorrect speech. The "short o," also, in such words as "observe" is often changed into a "lazy u" and the word becomes "ubserve."

Common substitution is "n" for "ng." Most people seem to think that the fault is leaving off the "g," but "ng" is neither "n" nor "g." It is only like "g" in that it is made at the back of the tongue, and like "n" because it is nasal. The fault is a substitution and due to the fact that the tip of the tongue can rise and work more easily than the back of the tongue. A remedy for this is to read a sentence or poem, such as "Lodore" with many repetitions of "ng," or to practice the exercise called Agility of the Soft Palate until "ng" becomes as easy as "n."

Of all faults of speech the most common and the most glaring centre is the misuse of quantity. Listen to ordinary, slip-shod speech, and notice how words are run together, and whole syllables and even words elided or blurred. Only a solitary letter or element of a word is sometimes heard, and that blended with elements taken from other words.

> Johnny recited one stanza of the "Psalm of Life" to the delight of his proud mamma and amid the plaudits of the company:
>
> "Liza Grape men allry mindus
> Weaken maka Liza Blime,
> Andy Parting Lee B. Hindus
> Footbrin Johnny Sands a time!"
>
> Ladies' Home Journal.

If anyone thinks this is exaggeration he should listen to conversation on the street. Of course it appears a little worse in print as there are no inflexions and other modulations of voice and actions to help in piecing out the imperfections of the words. The capital letters also help to confuse a reader more than a hearer.

We must not confuse true vocal quantity with pedantic squeezing of vowels by labored consonants. Prejudice against artificial speech or the over-balancing of consonant action and the squeezing of the vowels frequently prevents genuine work upon vocal quantity.

Pause and touch furnish one of the best exercises for the development of articulation in rhythmic alternation.

The subject of articulation will be lifted to a higher plane when we realize that what is needed is larger vowel chambers, more simple and definite decision of consonants, true vocal quantity, and right sequence of syllables, more relaxation rather than labored action of the heavy muscles and more definite action of the delicate necessary parts.

NO DANGER TO THE BRAVE.

"The sky is clouded, the rocks are bare;
The spray of the tempest is white in air;
The winds are out with the waves at play
And I shall not tempt the sea to-day.

The trail is narrow, the wood is dim,
The panther clings to the arching limb;
And the lion's whelps are abroad at play,
And I shall not join in the chase to-day."

But the ship sailed safely over the sea,
And the hunters came from the chase in glee,
And the town that was builded upon a rock
Was swallowed up in the earthquake-shock.

Bret Harte.

IX

ARTISTIC APPLICATIONS

XXXIV. FORMS OF ART

However thoroughly we may understand the sciences of voice production and training, we must always bear in mind that vocal training primarily belongs to art. By a scientific method we broaden our information and deepen our knowledge of principles. But some kind of art follows with their instinctive use. Whatever we know must be assimilated and be used as material for the creative imagination. We do not really know anything until we are able to express it.

Science is deliberative; art more instinctive. Science is more abstract, impersonal, judicial, intellectual; art is more imaginative, emotional, synthetic, concrete, and creative. They complement each other in any true human development.

This is especially true of the voice. It is primarily an agent of expression, and all our knowledge of it must be applied knowledge. We are apt to regard the voice as merely a useful tool, if not a mechanical one. Even in this respect it has been depreciated and for any higher artistic use of it men have little thought. The voice is continually used to express commonplace ideas.

For many reasons the arts associated with the voice are the most misunderstood and most liable to abuse. They are subjective and personal. The agent used is a part of the body. They are transitory, dying the moment they are born.

The speech arts are especially liable to misconception and neglect. Men talk every day, and there is nothing more commonplace than ordinary conversation. Many exalt art or poetry and separate them from life. Art belongs, they think, to the wealthy few; the many have little to do with it. Nothing can be farther from the truth. The highest art, literature or poetry, is closest to life. The best art uses the simplest means, expresses universal truth, and belongs to all mankind. He is not a complete man who does not appreciate the highest phases of human experience. The people who do not act are one-sided. Freedom cannot live without oratory. The race that does not sing is doomed.

The various arts are simply phases or modes of expression. We can divide them into the arts that are primarily expression and those which are rather records of expression. Painting, sculpture, and architecture are permanent possessions of the race; they can be seen, felt, and realized for thousands of years. But the arts that use the voice as an agent cannot be recorded. There is great advantage in studying an objective art like painting. One painting can be compared with another. We can realize standards of criticism and note characteristics. We can compare such arts with nature and study them for long periods of time.

The arts associated with speaking, however, have their advantage in a more intense feeling, greater diversity of ideas as well as greater complexity of elements. The different arts are different languages. Each begins where the other leaves off. Each says something that no other can say so well. Hence, all of these arts must be brought into sympathetic union. They complement each other and only by comparative study can we realize the deepest principles.

There is a special reason why transitory arts like vocal expression should be compared with the recordable and permanent arts like painting. On the other hand, there are many reasons why painters and sculptors should study human expression. The word "expression" belongs to natural acts, such as the smile or the simplest voice modulations. A painting or statue are records of expression, records of one instant. If well chosen they may reveal the spirit of a character, but to make any advance the sculptor or painter must study the natural expression of everyday life and should know the fundamental principles of the transitory arts.

The dramatic arts are the arts of humanity. The arts associated with speech and song are ever the most popular. When understood and appreciated, when made a part of education, when endowed and encouraged, the other arts are stimulated and the highest culture results.

However, on account of the frequency of our voice modulations we entirely overlook and neglect them. When called to our attention we are indifferent. Who ever thinks of the voice, especially in speaking, as an agent of the highest art?

Painting, however, is objective. Hence, men have studied its nature and principles. Accordingly, we must often look to pictures and statues for principles governing all, and especially the vocal arts that are so near to us as not to be understood. From such an art we get rhythm, or what is known as composition, that is, the relation of parts in such a way that attention is maintained by leaping from one to another. We can see that a picture must also have unity. All its parts must be brought into relation, and further consideration of it reveals the fact that a true picture is one impression, one concentration of attention. Various parts must be so related to one another that all are seen at once, felt at once, the mind co-ordinating and bringing all into unity for the stimulation of an impression.

One important lesson in the right use of the voice drawn from the other arts, especially from painting, is the necessity of a vivid and deep impression. Painting is an objective record of one mental impression. It is the art that is founded upon intensity of gaze. The individualization of impression must ever be the first step in securing any artistic use of the voice.

In studying painting or sculpture we find another lesson, the necessity of right qualities of execution. The painter must have a touch characterized by decision, ease, and facility, and here as in all other arts we discover a technique, and perceive that a system of training which will master such qualities is necessary.

The same is true in human speech. Men use their voices with labor because they misunderstand or have not the right control of the instrument. They use them with constriction and with a lack of decision in the touch or in the giving of the simplest inflexion. To improve the arts of song or speech, accordingly, their technique must be mastered. It is impossible for one to improve his speaking without securing control over voice conditions.

To speak so as to be understood in the drawing room, on the street, or in the shop may be easy, but to speak so as to interpret some great theme to a thousand people demands unusual mastery of the voice. The weaknesses and imperfections found in ordinary speech become far more manifest the higher the function.

XXXV. QUALITIES OF NATURE AND ART

Thorough development of the voice demands careful analysis. Attention must be directed to specific parts, actions, and conditions. Single tones, letters, syllables, words, and phrases must be exercised for a definite end. If the student and teacher are not careful this often greatly emphasizes the deliberative elements. The student will be apt at first to become self-conscious. To remedy this the artistic point of view must be kept constantly in mind.

Hence, in connexion with all the previous lessons, technical exercises have to be followed by expression or exercise in rendition. Training is a means to an end. From the first the mental cause must be awakened. After exercise of a part the whole being and organism must be brought into action. Some specific interpretation must bring all into harmony. Mechanical practice of exercises alone can never bring all the co-ordinations into that deep union which is necessary. Expression is a natural act, that too upon which all the arts are founded. We must discover qualities of art from studying nature, apply all, and obey them in instinctive interpretation.

I. SPONTANEITY.

All through this series of books on the different phases of expression the fundamental characteristic of nature is recognized as being a process from within outward. This law of all life is the fundamental law of all expression. Mastery of exercises simply aims to give facility to this process in the human organism. For lack of a better name we will call this spontaneity. It might be called originality, since everything that obeys this law has a character distinct from everything else. It underlies other qualities, such as freedom or absence of external restrictions or hindrance; simplicity, or the directness between cause and effect, and unity or the fact that living expression comes from one centre, and acts in all directions with harmony.

The establishing of normal conditions enables the student to trust his instincts. Then, exercises as a mechanical performance must be forgotten and all the actions of being and body so normally established that naturalness is the result. In all art, knowledge must become a possession of instinct.

The student should widen his view of art; it is not a thing but a process; an art work must be an outgrowth and must suggest directly or indirectly the living process of an organism. The mastery of the speech arts especially awakens the artistic nature at the fountain head. The fundamental characteristic of nature must be fully realized. Thus, the student must come to feel naturally the kinship of all the arts as well as to be able to recognize their specific differences.

The beginning of all vocal art should be the right interpretation of some passage of good literature. In the expression of thought, imagination, and feeling embodied in such work the student must feel the nature of spontaneity. As every twig on the tree takes a different direction, as every leaf develops something of a distinct character, so with some kind of regulation and guidance yet without mechanical manipulation, on the one hand, or external repression on the other, must the inner life be expressed.

Spontaneity does not mean impulsiveness or chaos. It means harmonious union of all the faculties and powers of the man, voluntary and involuntary, the voice sympathetically responding to these, and all its parts co-ordinated in response to the deeper co-ordinations of thought, emotion, and will.

The student must distinguish carefully between impulsiveness and these essential qualities. Impulsiveness is the one-sided action of force. When a man has feeling without thought he will be impulsive. Spontaneity does not imply absence of control but of manipulation. The function of the will must be to reserve the inner energy until it diffuses itself through the whole nature. Attention must be sustained until imagination and feeling respond. The emotion must be reserved until it affects the breathing and the whole body.

There is a great difference between pushing a carriage with our own hands and attaching to it a spirited horse, climbing inside, and taking the reins. Our emotions acting by their own spontaneous force may be guided by man's will as a spirited animal, but to repress and have no faith in feeling, to obey mechanical rules, to manipulate our voices in all phases of expression, means taking the forces of nature into our own hands and interfering with the deepest human instincts.

Such interpretation especially tests whether the training has rightly awakened the subconscious and involuntary elements. Where there has been true co-ordination these are found to be disciplined, multiplied, regulated, and brought under control, though indirectly.

At the outset of practice for developing expression through the voice it is necessary to realize deeply the spontaneous activities or vigor of the involuntary impulses. There is no form of art where mere mechanical work is so instantly recognized. Since vocal expression is subjective, connected with the involuntary muscles and unconscious processes of the nervous system, bringing into activity the most subtle co-ordinations, we can see at once why men are so universally sensitive as to what is loosely called "naturalness." No elocutionary rules can be arranged or obeyed which will suggest the freedom, variation, and directness between cause and effect which is the fundamental character of all eloquence, expressive speech, or even song.

The student must have an instinctive realization of the difference between what he does by his will and what is done for him by indirect spontaneous impulses awakened in his nature. He must learn how to direct his will and his deliberative thought so as to awaken imagination and emotion and bring all into harmonious union.

This is the foundation of work for the education of the artist. By its means artificiality may be corrected and naturalness developed.

Great art has been called by William Morris "joy in one's work." "Art," says another, "is play reduced to the principle of order." The joy or play is this spontaneous element, order the volitional regulation. These must be blended into artistic unity. Control must intensify the inner force and life; order must stimulate and only guide but not repress the joy or play.

In the development of the voice the student must discover the connexion between his emotional action and the modulation of his voice and body. While he must attune his voice and establish normal actions or conditions favorable to response, he must recognize that this is only an attuning of the instrument, not the playing upon it. The climax of vocal training is reached when the voice responds perfectly to every thought and feeling.

In the rendition of any passage there are always elements that seem to be perfectly free — such as change of pitch, for example — especially between clauses or ideas, the length and degree of abruptness in inflexion, movement, or rhythm. Whenever any of these seem to be governed by rule the expression becomes mechanical. It is impossible to lay down laws for tone color, as already shown, and still less for texture. Vocal expression as an art is subjective and must be free.

II. CONSISTENCY AND UNITY.

One test of naturalness in the modulation of the voice is that the activity seems to come not only from within but from one centre and stimulates all parts equally.

There can be no great art of any kind without unity. If an objective art, like painting or architecture, must reflect certain characteristics of an organism, the artistic use of the voice which is the direct product of an organism, must much more reflect the organic relationship of all parts.

The whole nature must be concerned in voice, the entire body must vibrate; the whole being must be awake. Each phrase in common conversation should indicate the politeness, tenderness, and strength of the character of the speaker.

The whole nature of the man must be concerned. The whole being must be active; the whole body must vibrate. As each little phrase in conversation indicates the politeness, tenderness, earnestness, and character of the speaker, as well as his thought, imagination, and feeling, so the voice must be trained ever to express the complete life of the man.

This law must not only be felt and realized subjectively, but the student should recognize it in any true literary art work. Every play, every story, every fable, every speech, every poem, must be so rendered that its organic unity is revealed.

In the rendering of a passage every part should be given its own character. Harmony is the reconciliation of opposites. Sudden transitions and contrasts need especially to be emphasized. While the petals of a flower unfold in opposition yet they come from the same bud and the same life in the stem. So, in the interpretation of the best literature the deep, inner life of the passage requires the direct opposition of parts, and by this opposition their deeper kinship and unity is found.

Exercise 105. Spontaneity and Unity.

In "The Fool's Prayer," for example, the poet introduces us to a court and an idle, careless king who calls on the fool to make a prayer. Then there is a transition to the seriousness of the fool; instead of mockery sincere expression follows. After the prayer the last stanza describing the effect upon the king must be given not only as the climax of the whole, but in direct opposition to the spirit of the first. This opposition between the first and the last brings the whole into unity, from the sneer to reverence. All these parts must balance and harmonize with the whole, the intensity of the last must especially justify the other part, and bring the whole into complete unity.

THE FOOL'S PRAYER.

The royal feast was done; the king
  Sought some new sport to banish care,
And to his jester cried, " Sir Fool,
  Kneel now, and make for us a prayer!"

The jester doffed his cap and bells,
  And stood the mocking court before:
They could not see the bitter smile
  Behind the painted grin he wore.

He bowed his head, and bent his knee
  Upon the monarch's silken stool;
His pleading voice arose: " O Lord,
  Be merciful to me, a fool!"

" No pity, Lord, could change the heart
  From red with wrong to white as wool;
The rod must heal the sin; but, Lord,
  Be merciful to me, a fool!

" 'T is not by guilt the onward sweep
  Of truth and right, O Lord, we stay;
'T is by our follies that so long
  We hold the earth from heaven away.

" These clumsy feet, still in the mire,
  Go crushing blossoms without end;
These hard, well-meaning hands we thrust
  Among the heart-strings of a friend.

" The ill-timed truth we might have kept —
  Who knows how sharp it pierced and stung?
The word we had not sense to say —
  Who knows how grandly it had rung?

" Our faults no tenderness should ask,
  The chastening stripes must cleanse them all;
But for our blunders — oh, in shame
  Before the eyes of heaven we fall.

> "Earth bears no balsam for mistakes;
> Men crown the knave, and scourge the tool
> That did his will; but thou, O Lord,
> Be merciful to me, a fool!"
>
> The room was hushed; in silence rose
> The king, and sought his gardens cool,
> And walked apart, and murmured low,
> "Be merciful to me, a fool!"
>
> Edward Rowland Sill.

Many passages can be found in which the interpretation of the whole demands such definite opposition and contrast in the parts. In "The Witch's Daughter," which Whittier re-wrote and extended under the title of "Mabel Martin," we have a spirited description of a joyous New England scene which turns into a throb of sorrow, but comes to a strong climax with joy chastened by sorrow, and much deeper than the joy of the opening.

III. INTIMATION.

The aim of the voice, as of all true art, is to reveal thought, imagination, and feeling. Hence, the highest quality which should always be recognized is its power to intimate or to suggest the deeper conditions of the human heart.

All true art, to be effective, especially any form of vocal art, demands emphasis of fundamentals rather than of accidentals. An exaggeration of accidentals always destroys harmony and unity, and especially the power to suggest the deepest experience. When accidentals are exaggerated, onesidedness always results; when fundamentals are emphasized, strength and power and the deepest feelings of the speaker can be intimated.

There are special reasons for studying the fundamental principles of art in the use of the voice. Elocution for over one hundred years has emphasized accidentals. Able teachers have contended that abnormal qualities, such as nasality, flatness, or throatiness should be used in the art of public reading. This has tended to degrade all the speech arts.

All normal emotions, of their very nature, tend to purify the voice. Degraded emotions must be idealized in art, and such idealizing tends to cause such emotions to be only suggested by modulations of texture and color.

Faults of voice are accidental and not essential parts of character. They are abnormal; hence, when these are emphasized the fundamental spirit of art as the revelation of the deeper conditions of character is destroyed.

Tone color and texture are absolutely impossible with these faults, since their presence totally perverts the secondary vibrations. All emotion is expressed by the modulation of these secondary vibrations, and whatever perverts these will destroy expression.

For these and many other reasons which could be adduced such faults, even in true dramatic work, belong only to farce and burlesque. In tragedy and in all true comedy, on the platform and in the interpretation of all true literature normal qualities can be modulated sufficiently to express every phase of human feeling and human character without the introduction of perversions and abnormal habits which are destructive of all art and also destructive of health.

The power of the voice to suggest even abnormal characters without itself becoming pervertedly abnormal is one of the secrets of true, noble, and ideal vocal art.

Every form of human art is continually tempted to express that which is low This is easier and more popular, but no man can make an artist in any department who is not continually struggling to express the aspirations, ideals, and higher experiences of his nature and to express them in the highest possible way. It is easy to express on the lower plane; the difficulty is to grapple with higher things. When the higher are expressed the least hint will serve on the lower plane, but when attention is given completely to represent what is on a lower plane the power to intimate that which is on the higher plane is impossible. One who desires to realize and develop the high possibilities of his voice must again and again endeavor to express the most ideal feelings and experiences and interpret the best poetry and literature.

THE STAR.

I had a star to sing by, a beautiful star that led,
But when I sang of its splendour the world in its wisdom said:
" Sweet are your songs, yet the singer sings but in madness when
He hymns but stars unbeholden of us his fellows of men;

Glow-worms we see and marshlights; sing us sweet songs of those
For the guerdon we have to give you, laurel and gold and rose;
Or, if you must sing of stars, unseen of your brother man,
Go, starve with your eyes on your vision; your star may save if it can!"

So I said, " If I starve and die I never again shall see
The glory, the high white radiance that hallows the world for me;
I will sing their songs, if it must be, and when I have golden store,
I will turn from the marsh and the glow-worms, and sing of my star once more."

So I walked in the warm wet by-ways, not daring to lift my eyes,
Lest love should drive me to singing my star supreme in the skies,
And the world cried out, " We will crown him, he sings of the lights that are,
Glories of marshlight and glow-worm, not visions vain of a star."

I said, " Now my brows are laurelled, my hands filled full of their gold,
I will sing the starry songs that these earthworms bade withhold.
It is time to sing of my star!" for I dreamed that my star still shone,
Then I lifted my eyes in my triumph. Night! night! and my star was gone.

E. Nesbit.

The suggestiveness of the voice is remarkable. All expression is simply the appeal of the faculties of one to similar faculties in another. The true secret of all art is intimation. No man can conceive adequately the ocean. In one sense, accordingly, it cannot be expressed, but in another sense, when one stands before his fellow-men he can show the effort to realize it and the will is taken for the deed. One also who expresses his endeavor to conceive the infinite, awakens another to the same effort and the two natures are united in an endeavor to realize something that transcends human perception. The highest expression is something that transcends language; it is especially that intimation which transcends all representation.

The Peak is high and flush'd
  At his highest with sunrise fire;
The Peak is high, and the stars are high,
  And the thought of a man is higher.
A deep below the deep,
  And a height beyond the height!
Our hearing is not hearing,
  And our seeing is not sight.

From "The Voice and the Peak" **Alfred Tennyson.**

Observe how the voice can express perception on the lowest commonplace plane in the following lines, and then suggest the gradual rising of the mind to the realization on the highest truth.

Flower in the crannied wall,
  I pluck you out of the crannies; —
Hold you here, root and all, in my hand,
Little flower; — but if I could understand
What you are, root and all, and all in all,
  I should know what God and man is.

Alfred Tennyson.

Note also that the human voice can intimate impressions received on a mountain height, and more than this, can suggest the difference between the impression in daylight and at night under the stars.

Oh, at the eagle's height,
  To lie in the sweet of the sun,
While veil after veil takes flight,
  And God and the world are one.

Oh, the night on the steep!
  All that his eyes saw dim
Grows light in the dusky deep,
  And God is alone with him.

(George William Russell.) "A. E."

We find here the glory of the human voice in expression. It is subjective, personal. When properly trained it becomes so allied with human powers that it intimates their action, even their effort to conceive the inconceivable, to express that which is most exalted and most sublime. The student should study the most ideal poem he can find. He must endeavor to realize it deeply and profoundly and express it truly. He must realize it not by the intellect, as if it were something to be easily understood, but as something that can only be hinted to the imagination. "The deep below the deep, the height above the height" can only be felt.

The voice can reveal the impressions made upon the human heart. It does not represent the exact ideas; it reveals experiences; and in this it lays the foundation for artistic expression. It does not even represent things or facts but manifests the impressions made upon the human being. This forms the basis of the highest art. Of all the means human ingenuity has employed in all phases of representation, in music, painting, and sculpture the living voice transcends them all. The voice is the one sublime means by which men communicate their deepest experiences, their ideals, and aspirations.

In this highest power of the living voice, its power to express the ideal, even that which man realizes but cannot understand, we find the importance of the voice in human education, its power to develop the imagination and feeling. It enables one human being to express to another the highest aspirations and deepest realizations of the human heart.

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